



Research Product 96-13

**Brigade Battle Staff Training System (BDE-BSTS)
Program Design/Critical Tasks**

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U.S. Army Research Institute

September 1996

Infantry Forces Research Unit

U.S. Army Research Institute for the Behavioral and Social Sciences

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14. ABSTRACT (<i>Maximum 200 words</i>): <p>This report is a research byproduct that documents the front-end analysis for development of the Brigade Battle Staff Training System (BDE-BSTS). BDE-BSTS, a set of functional area training packages for brigade-level staff officers, is a combination of text and computer-based instruction (CBI). Sponsored by the Defense Advanced Research Projects Agency (DARPA), the BDE-BSTS was developed for use by the U.S. Army National Guard (ARNG). The prototype BSTS comprised 13 courses for training brigade staff officers in individual functional areas and those tasks required to prepare staffs for collective battle staff tasks. The glossary presents the working definitions of terms used in these programs.</p> <p>The BSTS program, sponsored under the DARPA program umbrella of Simulation in Training for Advanced Readiness (SIMITAR), is coordinated with three other programs: Simulation-Based Mounted Brigade Training Program (SIMBART), Simulation-Based Multiechelon Training for Armor Units (SIMUTA), and Combat Service Support (CSS) Training System Development for the National Guard.</p>					
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FOREWORD

The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) Infantry Forces Research Unit's long-term research on leader training has provided several initiatives designed to improve individual staff officer functional area training. One of the recent efforts, the Battle Staff Training System (BSTS), sponsored by the Defense Advanced Research Projects Agency, resulted in prototype training programs for Army National Guard battalion and brigade staff officers. BSTS is a combination of computer-based instruction and text-based supporting materials, designed to be used as self-paced instruction.

This report, a byproduct of BSTS research, provides a task list and an overview of the battalion-level courses within the prototype Brigade BSTS. Doctrinal references and learning objectives are included. It provides a useful reference as well as documentation for the front-end analysis of the BSTS.

The BSTS has been demonstrated and briefed to personnel throughout the military training community, and the prototype systems are being adapted for use in the Force XXI Training Program. Additional work is being undertaken for the Joint Readiness Training Center, and interest has been expressed by numerous schools and National Guard units.

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(Science and Technology)

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Director

BRIGADE BATTLE STAFF TRAINING SYSTEM PROGRAM DESIGN/CRITICAL TASKS

The Army Research Institute (ARI) Infantry Forces Research Unit has over the past several years conducted a program of research designed to improve training and performance for battalion and brigade staff officers. The prototype programs, Battalion-Battle Staff Training System (BN-BSTS) and Brigade-Battle Staff Training System (BDE-BSTS) were conducted under the sponsorship of the Defense Advanced Research Projects Agency (DARPA), with the majority of the work being performed by BDM, Federal, Inc.

The BSTS was designed to address identified deficiencies in staff functional area training for maneuver battalion and brigade staff officers. Recognizing that the need for such training was especially critical for the Reserve Component, DARPA and the U.S. Army National Guard (ARNG) supported the development of the prototype BSTS for experimental application by the ARNG. BSTS is part of the Simulation in Training for Advanced Readiness (SIMITAR) advanced technology demonstration.

The BSTS are parallel sets of thirteen doctrinally-based training packages for staff officers, a mixture of text and computer-based instruction. The training includes interactive software and paper-based materials for the Executive Officer (XO), S1/Chaplain, S2, S3, S3-Air, S4, S5 Civil Military Officer, Fire Support Officer, Signal Officer, Chemical Officer, Engineer, and Air Defense Artillery Officer. The Common Core Course, at both battalion and brigade, provides information used by all staff officers. Battalion and brigade BSTS courses are similar, but tailored to the respective levels.

The BSTS programs were designed to be run on a 486 PC, in a Windows environment, with CD ROM. The programs also include training management software and introductory tutorials. Each course module provides core material necessary for the officer to function in the assigned staff position. There are diagnostic pretests, practical exercises, within topic quizzes, and a final examination to measure progress and provide feedback. Also available are help screens, and an on-line glossary. The BSTS allows the staff officer to train at his own pace at home, in the unit, or at the armory.

Prior to the development of each of the individual courses, a Front End Analysis was performed to identify critical tasks. Source documents included the appropriate Department of the Army Field Manuals, Mission Training Plans, Command and General Staff College Student Texts, and previously developed ARI research products.

The attached product, Brigade Battle Staff Training System Program Design/Critical Tasks, provides an overview of each of the courses developed for BDE-BSTS. Included are the course outlines; terminal learning objectives; tasks, conditions and standards; and the doctrinal references for each of the courses. The critical tasks provide not only the documentation for the BSTS work, but serve as a useful stand alone product for further research.

Appendix A

Research Product

Brigade Battle Staff Training System (BDE-BSTS): Program Design/Critical Tasks



1 July, 1996



**U.S. Army Research Institute
Infantry Forces Research Unit**

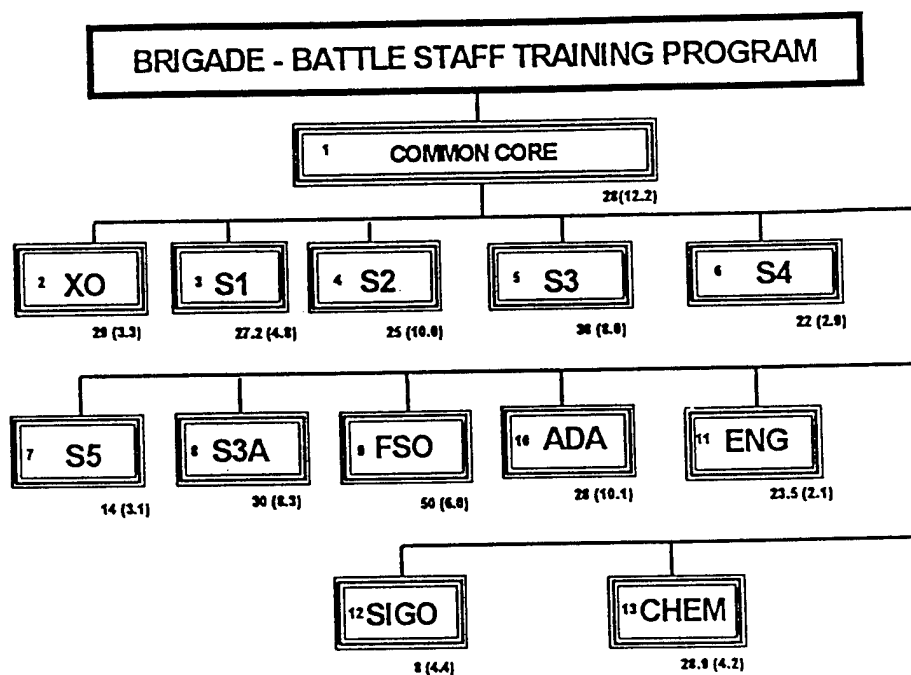
TABLE OF CONTENTS

Brigade Battle Staff Training System	
Program Map	A-4
Common Core	
Course Map	A-5
Training Objectives	A-5
References	A-10
Executive Officer	
Course Map	A-11
Training Objectives	A-11
References	A-16
S-1/Chaplain	
Course Map	A-17
Training Objectives	A-17
References	A-21
S-2	
Course Map	A-23
Training Objectives	A-23
References	A-29
S-3	
Course Map	A-30
Training Objectives	A-30
References	A-36
S-3 (Air)	
Course Map	A-37
Training Objectives	A-37
References	A-42
S-4	
Course Map	A-43
Training Objectives	A-43
References	A-47
S-5	
Course Map	A-48
Training Objectives	A-48
References	A-51
Fire Support Officer (FSO)	
Course Map	A-52
Training Objectives	A-52
References	A-57
Air Defense Artillery Coordinator (ADCOORD)	
Course Map	A-58
Training Objectives	A-58
References	A-62

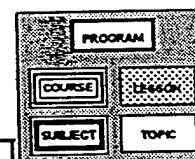
TOC, continued

Engineer	
Course Map	A-63
Training Objectives	A-63
References	A-68
Signal Officer (SIGO)	
Course Map	A-69
Training Objectives	A-69
References	A-72
Chemical Officer (CHEMO)	
Course Map	A-73
Training Objectives	A-73
References	A-77

BATTLE STAFF TRAINING SYSTEM



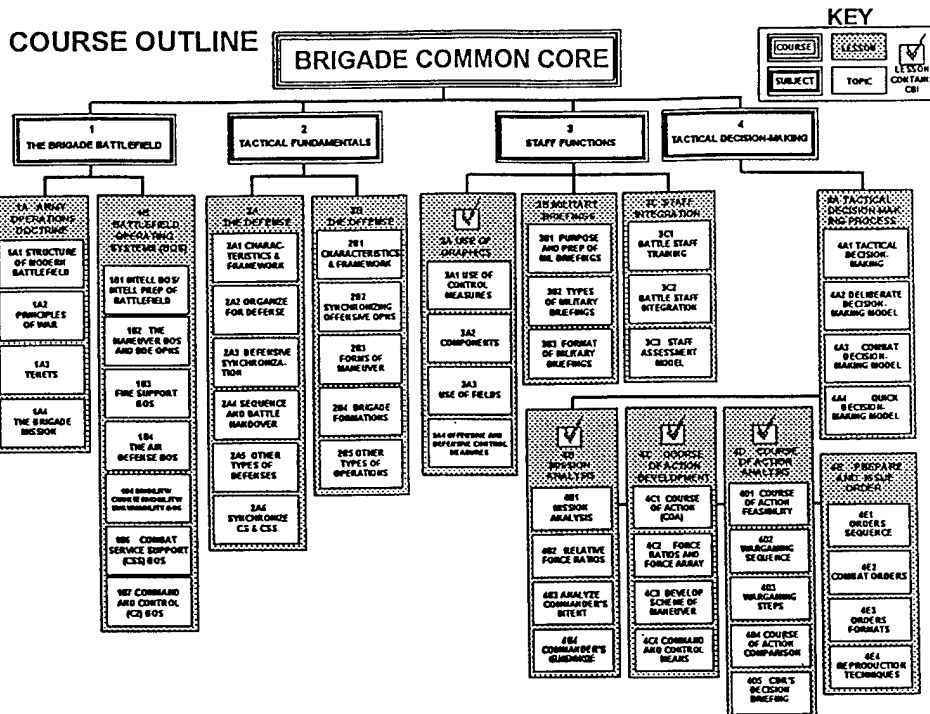
KEY



TEXT 272
CBI 79
TOTAL 352

AS OF 23 Feb 96

FINAL



BRIGADE COMMON CORE SUBJECTS: TASKS, CONDITIONS, AND STANDARDS

TERMINAL LEARNING OBJECTIVE (TLO): To provide a common level of understanding of the principles of Army Operations doctrine; the tactical employment of a mechanized infantry brigade and its subordinate battalions or task forces in a combined arms environment; key staff functions within the brigade; and provide a model for organizational competence for the individual to gauge the effectiveness of his unit's battle staff and develop a means of improving staff performance.

TASK 1: THE BRIGADE BATTLEFIELD

TASK 1A: Define key components of Army Operations doctrine.

CONDITIONS: Given a course of instruction and access to FM 100-5 *Operations*, chapters 1-3, and 6.

STANDARDS: Definition must be in accordance with FM 100-5 and include the following:

- Define doctrine.
- Define the three levels of warfare.
- Define the structure of the battlefield to include the three levels of war (strategy, operational art, and tactics).
- Identify the close, deep and rear battle areas.
- Identify the nine Principles of War.
- Define the dynamics of combat power in accordance with FM 100-5.
- Identify and explain the Tenets of Army Operations.

TASK 1B: Define the seven battlefield operating systems (BOS) and their application at brigade-level.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, chapters 1, 2, 6, and 7; and FM 100-5 *Operations*, chapter 2.

STANDARDS: Definitions must be in accordance with FM 100-5 and include the following:

- a. Define the Intelligence BOS and brigade application.
- b. Define the Maneuver BOS and brigade application.
- c. Define the Fire Support BOS and brigade application.
- d. Define the Mobility/Counter mobility/Survivability BOS and application to brigade.
- e. Define the Air Defense BOS and brigade application.
- f. Define the Combat Service Support BOS and brigade application.
- g. Define the Command and Control BOS and application to brigade.

TASK 2: TACTICAL FUNDAMENTALS

TASK 2A: Identify Fundamentals of Defensive Operations.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, chapter 4; and FM 100-5 *Operations*, chapter 9.

STANDARDS: Identify the fundamentals of defensive operations in accordance with FM 71-3 and FM 100-5. Identification must include the following:

- a. Define the purpose of defensive operations.
- b. Identify the characteristics of defensive operations.
- c. Identify the alternate defensive patterns.
- d. Identify the framework of the defense.
- e. Identify the three types of security operations.
- f. Identify aspects of defensive synchronization.
- g. Identify critical components of the battle handover.
- h. Identify the role of counterreconnaissance in the defense.

TASK 2B: Identify the Fundamentals of the Offense.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, chapter 3; and FM 100-5 *Operations*, chapter 7.

STANDARDS: Identification of the offensive fundamentals must be in accordance with FM 71-3 and FM 100-5 and include the following:

- a. Describe the five characteristics of offensive operations.
- b. Correctly describe the five areas of the framework of the offense.
- c. Identify the five forms of maneuver and their application.
- d. Identify the major brigade movement formations.
- e. Identify the five types of offensive operations and the conditions under which they are used.
- f. Identify the special operations that the brigade may participate in either independently or as part of a larger force.

TASK 3: STAFF FUNCTIONS

TASK 3A: Describe the correct use of operational terms and graphics for effective command and control of brigade operations.

CONDITIONS: Given a course of instruction and access to FM 101-5-1 *Operational Terms and Symbols*, chapter 2.

STANDARDS: Descriptions must be in accordance with FM 101-5-1 and include the following:

- a. Identify the colors used to depict military graphics.
- b. Identify friendly and enemy graphics.
- c. Identify current and proposed/suspected friendly and enemy graphics measures.
- d. Identify selected basic and interservice symbols.
- e. Identify unit size indicators.
- f. Identify selected unit role indicators.
- g. Identify selected equipment symbols.
- h. Identify selected vehicle symbols.
- i. Identify selected aviation symbols.
- j. Identify selected graphic control measures and installation role indicators.

TASK 3B: Describe the purpose, preparation, and the four types of military briefings.

CONDITIONS: Given a course of instruction and access to FM 101-5 *Staff Organization and Operations*.

STANDARDS: Identification of the four steps in preparing a military briefing must be in accordance with FM 101-5, chapter 4 and appendix C and include the following:

- a. Describe the purpose of military briefings.
- b. Identify the four steps in preparing a military briefing.
- c. Identify the steps in constructing a military briefing.
- d. Identify the four types of military briefings.
- e. Identify the component parts of a decision briefing.
- f. Identify the use of each of the four types of military briefings.

TASK 3C: Identify critical components of tactical decision-making.

CONDITIONS: Given a course of instruction and access to FM 101-5 *Staff Organization and Operations* and CGSC Student Text 100-9 *Techniques and Procedures for Tactical Decision-Making*, July 1993.

STANDARDS: Descriptions must be in accordance with CGSC ST 100-9 and include the following:

- a. Identify the four tools that the commander has available to assist him in conducting problem solving.
- b. Identify the factors of METT-T analysis.
- c. Identify specified and implied tasks.
- d. Identify the role of the commander's intent.
- e. Identify the role staff estimates play in the decision-making process.
- f. Identify the steps in the estimate of the situation and the role the estimate of the situation plays in the decision-making process.
- g. Identify the steps in troop-leading procedures and the role troop leading procedures play in the decision-making process.
- h. Identify the relationship between the factors of METT-T, the estimate of the situation, and troop-leading procedures.
- i. Identify critical components of the three decision-making models.

TASK 3D: Identify critical requirements necessary to conduct a mission analysis.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, chapters 1 and 2; M 101-5 *Staff Organization and Operations*, chapters 4, 5, and 6; and CGSC Student Text 100-9 *Techniques and Procedures for Tactical Decision-Making*, July 1993.

STANDARDS: Descriptions must be in accordance with FM 101-5 and include the following:

- a. Identify the four steps in mission analysis.
- b. Identify facts and assumptions.
- c. Identify the tasks that must be performed in conducting mission analysis.
- d. Analyze force ratios.
- e. Identify the role the commander's intent plays in the mission analysis process.
- f. Determine specified, implied, and essential tasks.
- g. Identify the role limitations and risk plays in the mission analysis process.
- h. Identify the role the commander's guidance plays in the mission analysis process.
- i. Identify the role the restated mission plays in the mission analysis process.
- j. Conduct a mission analysis.

TASK 3E: Identify critical requirements necessary to develop a course of action.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, chapters 1 and 2; FM 101-5 *Staff Organization and Operations*, chapters 4, 5, and 6; and CGSC Student Text 100-9 *Techniques and Procedures for Tactical Decision-Making*, July 1993.

STANDARDS: Descriptions must be in accordance with FM 101-5 and include the following:

- a. Identify course of action development as the second step in the tactical decision-making process.
- b. Identify the required elements that determine course of action suitability.
- c. Identify the five basic elements of the battlefield framework that must be included in the course of action.
- d. Identify the four steps for course of action development and the role each
- e. Develop selected courses of action.

TASK 3F: Analyze a course of action.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, chapters 1 and 2; FM 101-5 *Staff Organization and Operations*, chapters 4, 5, and 6; and CGSC Student Text 100-9 *Techniques and Procedures for Tactical Decision-Making*, July 1993.

STANDARDS: Descriptions must be in accordance with FM 101-5 and include the following:

- a. Identify course of action (COA) analysis as the third step in the tactical decision-making process.
- b. Identify the three criteria for feasibility analysis.
- c. Identify the definition of acceptability analysis.
- d. Identify the seven steps in wargaming.
- e. Identify the two times the staff conducts wargaming during COA analysis.
- f. Identify the three wargaming techniques.
- g. Use the listed techniques to record and display COA results.
- h. Identify the key points and use of a synchronization matrix.
- i. Identify the roles the staff members play in wargaming.
- j. Prepare a decision matrix.

TASK 3G: Identify the processes used to prepare and issue combat orders.

CONDITIONS: Given a course of instruction and access to FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*, appendix B; FM 71-3 *Armored and Mechanized Infantry Brigade*, chapters 1 and 2; and FM 101-5 *Staff Organization and Operations*, chapter 7 and appendix G.

STANDARDS: Descriptions must be in accordance with FM 71-2 and include the following:

- a. Identify how troop leading procedure steps interface with preparing and issuing the operation order.
- b. Identify the two major categories of orders.
- c. Identify the five paragraphs of an operation order and critical sub-elements.
- d. Identify the differences between an operation order, an annex, administrative/logistics order, standing operating procedures, warning order, and fragmentary order.
- e. Identify the orders preparation techniques employed at the battalion task force level.
- f. Identify critical steps in preparing overlays and matrices.
- g. Identify reproduction techniques that could save time for orders reproduction.

TASK 3H: Organizational and process assessment and staff integration.

CONDITIONS: Given a course of instruction and access to FM 25-101 *Battle Focused Training*, chapters 1 and 2; and ARTEP 71-3 *Mission Training Plan for the Heavy Brigade Command Group and Staff*.

STANDARDS: Apply organizational and process assessment to your unit's staff.

Demonstrate mastery of the following performance measures:

- a. Define prerequisite organizational capabilities.
- b. Identify the role of command climate and the unit training program.
- c. Identify the seven organizational processes or functions.
- d. Describe the application of the Olmstead Model for Organizational Assessment to battle staff integration.
- e. Understand the use of the synchronization matrix as both an integration and evaluation tool.

Brigade Common Core Course References

FM 22-100	<i>Military Leadership</i>
FM 25-101	<i>Battle Focused Training</i>
FM 71-2	<i>The Tank and Mechanized Infantry Battalion Task Force</i>
FM 71-3	<i>Armored and Mechanized Infantry Brigade</i>
FM 71-123	<i>Tactics, Techniques, and Procedures for Combined Arms Heavy Force and Armor Brigade, Battalion/Task Force and Company</i>
FM 90-14	<i>Rear Battle</i>
FM 100-5	<i>Operations</i>
FM 101-5	<i>Staff Organization and Operations</i>
FM 101-5-1	<i>Operational Terms and Symbols</i>
ARI RP 94-02	<i>Brigade Commander's Battle Staff Handbook, U.S. Army Research Institute Fort Benning Field Unit Research Product</i>
ARTEP 71-3-MTP	<i>Mission Training Plan for the Heavy Brigade Command Group and Staff</i>
CGSC Student Text (ST) 22-2	<i>Effective Staff Communications</i>
CGSC Student Text (ST) 100-9	<i>Techniques and Procedures for Tactical Decision-Making</i>

COURSE OUTLINE

BRIGADE XO COURSE

[COURSE]

LESSON

☒ LESSON CONTAINS EX

1 CHIEF OF STAFF

1A1
ROLE OF RCS

1A1
FOUR ROLES OF THE XO

1A2
XO AS IC AND CHIEF OF STAFF

1A3
XO AS TRAINER AND LOGISTICIAN

1B
THE BRIGADE STAFF

1B1
EPW MANAGEMENT

1B2
BRIGADE MEDICAL SUPPORT

1B3
STAFF STRENGTH MANAGEMENT

1B4
STAFF STRENGTH MANAGEMENT CONCURRENCE

1C
INTELLIGENCE SECTION

1C1
ROLE OF THE IC

1C2
INTELLIGENCE OF THE BATTLEFIELD

1C3
THE IC COMPANY

1C4
COMMUNICATIONS AND PLANNING

2 SECOND IN COMMAND

2A
PERSONNEL OPERATIONS

2A1
CONFIRMATION

2A2
REAR AREA & TECHNIQUES

2A3
CONDUCTING REAR AREA

2B
COMMAND AND CONTROL OPERATIONS

2B1
BRIGADE CNO & CONTROL FACILITIES

2B2
BRIGADE COMMAND POSTS

2B3
BRIGADE COMMAND POST CONFIGURATION

2B4
BATTLE TRACKING

2B5
INTEGRATING INFORMATION & ADJUSTING PLAN

3 SENIOR LOGISTICIAN

3A
EYES OPERATIONS

3A1
TACTICAL SUSTAINMENT

3A2
SUSTAINMENT IMPERATIVES

3A3
SUPPORT CONCEPTS

3A4
CLASSES OF SUPPLY

3A5
CLASS OPERATIONS

3A6
REINFORCE OPERATIONS

3A7
DEP OPERATIONS

3A8
REAR OPERATIONS

3A9
CONTINGENCY OPERATIONS

3B
BOLDIER SUPPORT

3B1
ANALYSIS & FEEDBACK SYSTEM

3B2
WATER SUPPORT REQUIREMENTS

3B3
REQUIREMENT & DISTRIBUTION OF CLASS I ITEMS

3B4
CEB & GRAVES REGISTRATION

3B5
COMPUTING BATH & WATER REQUIREMENTS

3B6
NEWGRADE OPERATIONS

3C
FUELING AND SUPPORT OPERATIONS

3C1
FUEL FORCASTING & ORGANIZATION

3C2
PACKAGED PRODUCTS

3C3
CLASS V SPT ORGANIZATION & OPERATIONS

3C4
COMBAT CONSUMABLES LOADS

3C5
OPERATION OF ATP & ASP

3C6
COMPOSITE CLASS II & V REQUIREMENTS

3D
FEDERAL AND SUPPORT OPERATIONS

3D1
MAINTENANCE RESPONSIBILITY AND PLANNING

3D2
RECOVERY & EVACUATION

3D3
CLASS R OPERATIONS

3D4
FEDERAL SUPPORT

3D5
BOMBARDMENT ORGANIZATION

3D6
TRANSPORT PLANNING AND OPERATIONS

3D7
AIRLIFT SUPPORT

3E
WEED & RECONSTITUTION

3E1
WPKS EYES REPLACEMENT OPERATIONS

3E2
RECONSTITUTION

TERMINAL LEARNING OBJECTIVE (TLO): As the brigade chief of staff, the executive officer must have a complete understanding of the staff functions, responsibilities, and procedures that support the brigade; as the brigade second in command, the brigade XO must understand the tactical decision-making process and the functions that he may perform; and, as the senior logistician for the brigade, he must plan for and integrate all combat service support (CSS) assets to support the brigade mission.

TASK 1A: Identify the role of the brigade executive officer.

STANDARDS: Descriptions must be in accordance with FM 71-2 and include the following:

- A-12

TASK 1B: Identify critical requirements, organizations, staff responsibilities and general management procedures for: handling enemy prisoners of war (EPW) and civilian internees (CI); medical support for the brigade and its subordinate battalions; and strength management.

CONDITIONS: Given a course of instruction and access to AR 600-8 *Military Personnel Management*; AR 600-8-6 *Personnel Accounting and Strength Reporting*, Section V; FM 8-10 *Health Service Support in a Theater of Operations*, chapter 2; FM 12-6 *Personnel Doctrine*, chapters 1, 4, and 11; FM 19-40 *Enemy Prisoners of War, Civilian Internees, and Detained Persons*, chapter 1; FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*, chapter 7; FM 100-10 *Combat Service Support*, chapter 3; and sample report formats.

STANDARDS: Definitions must be in accordance with AR 600-8-6, FM 12-6, FM 19-40, and FM 71-2 and include the following:

- a. Identify proper definitions of enemy prisoners of war and civilian internees.
- b. Identify the legal requirements and obligations in handling enemy prisoners of war and civilian internees.
- c. Identify staff responsibilities and coordination requirements in the handling of EPW at battalion task force level.
- d. Identify the four levels of health care within a combat theater of operations.
- e. Identify the six modules of health/medical support found within medical support units.
- f. Identify the organization and level of care found in the task force medical platoon.
- g. Identify the organization and level of care found in the forward support battalion's medical company.
- h. Identify the criterion of medical evacuation.
- i. Identify methods for developing wartime personnel accountability that meet the Army goal.
- j. Identify the main reporting system for company/team level personnel operations.
- k. Identify a method for developing a battle roster numbering system.
- l. Identify the three main automated reports for task force level operations.
- m. Identify critical military occupational skill (MOS) shortages within a task force.
- n. Identify methods used to conduct reconciliations of hasty reporting.

TASK 1C: Identify the mission of the brigade S2 and intelligence gathering resources that are either organic or support the maneuver brigade.

CONDITIONS: Given a course of instruction and access to FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*, chapters 2, 3, and 6.

STANDARDS: Descriptions must be in accordance with FM 71-2 and include the following:

- a. Identify organic intelligence gathering assets.
- b. Identify the purpose of the Intelligence Preparation of the Battlefield (IPB) and the three templates prepared as part of the IPB process.
- c. Identify key players in brigade IPB process.
- d. Identify the five functions of the IPB process.
- e. Identify the five military aspects of OCOKA.
- f. Identify key aspects of reconnaissance and surveillance planning.
- g. Identify resources available to support the brigade from the military intelligence company.

TASK 1D: Identify key components and functions of the forward support battalion (FSB) organization.

CONDITIONS: Given a course of instruction and access to FM 63-20 *The Forward Support Battalion*, chapters 2 and 6 through 9, and FM 101-5 *Staff Organization and Operations*, chapters 2 and 3.

STANDARDS: Descriptions must be in accordance with FM 63-20 and include the following:

- a. Identify critical locations from which the brigade, the FSB, and subordinate maneuver units perform their respective combat service support missions.
- b. Identify the role of the main supply route (MSR) and the key players involved in the planning process.
- c. Identify key components and functions of the FSB organization.
- d. Identify key components and functions of the FSB supply company organization.
- e. Identify key components and functions of the FSB maintenance company organization.
- f. Identify key components and functions of the FSB medical company organization.

TASK 2: SECOND IN COMMAND

TASK 2A: Identify command and control techniques used to prepare the brigade for a mission once the operation order is issued.

CONDITIONS: Given a course of instruction and access to FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*, chapters 2, 3, and 4; FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team*, chapter 2; and CALL Newsletter 91-1 *Rehearsals*, April 1991.

STANDARDS: Descriptions must be in accordance with FM 71-2 and include the following:

- a. Identify the three types of briefings used to confirm subordinate understanding of the mission and situation.
- b. Identify the variables that impact on the type of rehearsal selected by the command.
- c. Identify the purpose of rehearsals and the three levels of rehearsals.
- d. Identify the eight rehearsal methods.
- e. Identify the purpose of orders groups.
- f. Identify critical rehearsal planning, preparation, and execution techniques.

TASK 2B: Identify the general organizations, functions, and capabilities of the brigade tactical, main, and rear command posts (CPs).

CONDITIONS: Given a course of instruction and access to FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team*, chapter 1; and FM 101-5 *Staff Organization and Operations*, chapter 8 and appendix B.

STANDARDS: Descriptions must be in accordance with FM 71-123 and include the following:

- a. Identify the three brigade command and control facilities.
- b. Identify the organizations of the tactical (TAC) and main CPs.
- c. Identify critical equipment and capabilities of the tactical (TAC) and main CPs.
- d. Identify critical considerations for moving the main CP.
- e. Identify techniques and procedure for battle tracking.
- f. Identify the use of journals, the situation map, and map posting procedures.
- g. Identify critical actions used when integrating updated information and adjusting the plan.

TASK 3: SENIOR LOGISTICIAN

TASK 3A: Identify combat service support provided by the forward support battalion (FSB) and the tactical considerations impacting support to brigade tactical operations.

CONDITIONS: Given a course of instruction and access to FM 63-20, *The Forward Support Battalion*, chapters 2, 5, 7, and Appendix A.

STANDARDS: Definitions must be in accordance with FM 63-20 and include the following:

- a. Identify operational and tactical sustainment.
- b. Identify tactical sustainment planning criteria.
- c. Identify selected tactical planning factors.
- d. Identify the five combat service support sustainment imperatives.
- e. Identify the two major support concepts required in supporting the heavy brigade.
- f. Identify the three areas of operations of the battle-field and the role the FSB plays in each.
- g. Identify critical support considerations of the FSB in offensive operations.
- h. Identify critical support considerations of the FSB in defensive operations.
- i. Identify critical support considerations of the FSB in j. Identify critical support considerations of the FSB in rear area operations.

TASK 3B: Identify the field services and supply support available to the brigade.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, chapter 7; FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapter 8; FM 100-10 *Combat Service Support*, chapter 5; and US Army Research Institute Fort Benning Field Unit Research Project *Commander's Battle Staff Handbook*, March 1995, pgs. 69-87.

STANDARDS: Definitions must be in accordance with FM 100-10 and include the following:

- a. Identify the Army feeding system.
- b. Determine the water support requirements.
- c. Identify the procedure for the requisitioning and distribution of Class I items within the division.
- d. Identify Clothing Exchange and Bath (CEB) and graves registration requirements for the brigade.
- e. Compute ration and water requirements for the brigade.

TASK 3C: Identify the refueling and rearming process for the brigade and its subordinate battalions.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, chapter 7; FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapter 8; FM 100-10 *Combat Service Support*, chapters 6 and 7; and US Army Research Institute Fort Benning Field Unit Research Project *Commander's Battle Staff Handbook*, March 1995, pgs. 69-87.

STANDARDS: Definitions must be in accordance with FM 100-10 and include the following:

- a. Identify the Class III organization structure.
- b. Identify the Class III forecasting system.
- c. Identify refueling methods.

- d. Identify package products.
- e. Identify the Class V organization structure.
- f. Identify the Class V forecasting structure.
- g. Identify combat critical loads.
- h. Identify the operations of the ammunition transfer point and ammunition supply point.
- i. Identify unit basic loads.
- j. Compute fuel requirements for the brigade.
- k. Compute ammunition requirements for the brigade.

TASK 3D: Identify the fixing and moving capabilities available to the brigade and its subordinate battalions.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, chapter 8; FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapter 8; FM 100-10 *Combat Service Support*, chapters 8 and 9; and US Army Research Institute Fort Benning Field Unit Research Project *Commander's Battle Staff Handbook*, March 1995, pgs. 69-87.

STANDARDS: Descriptions must be in accordance with FM 100-10 and include the following:

- a. Identify the different categories of maintenance.
- b. Identify maintenance terms.
- c. Identify key maintenance planners within the brigade.
- d. Identify the recovery and evacuation assets within the brigade.
- e. Identify battle damage assessment and repair (BDAR) techniques.
- f. Identify repair timeliness.
- g. Identify maintenance concepts.
- h. Identify Class IX supply operations.
- i. Identify transportation organization.
- j. Identify key transportation planners and operations.
- k. Identify airlift support capabilities.

TASK 3E: Conduct weapons system replacement operations and reconstitution in support of the brigade

CONDITIONS: Given a course of instruction and access to FM 12-6 *Personnel Doctrine*, Part Three, Chapter 2; FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company/Team*, Chapter 8; FM 100-9 *Reconstitution*; and FM 100-10 *Combat Service Support*, Chapter 2.

STANDARDS: Descriptions must be in accordance with FM 100-9 and FM 100-10 and include the following:

- a. Identify the principal weapons system replacement manager at both brigade and battalion task force levels.
- b. Identify the responsibilities of the staff towards weapons system replacement operations.
- c. Identify the goals of weapons system replacement at the brigade and battalion task force level.
- d. Identify when, where, and who will conduct weapons systems replacement operations.
- e. Identify methods to track weapons system status within a task force.
- f. Conduct an exercise in tracking weapons system status.
- g. Identify the difference between reorganization and regeneration.
- h. Identify staff responsibilities toward reconstitution.

Brigade XO Course References

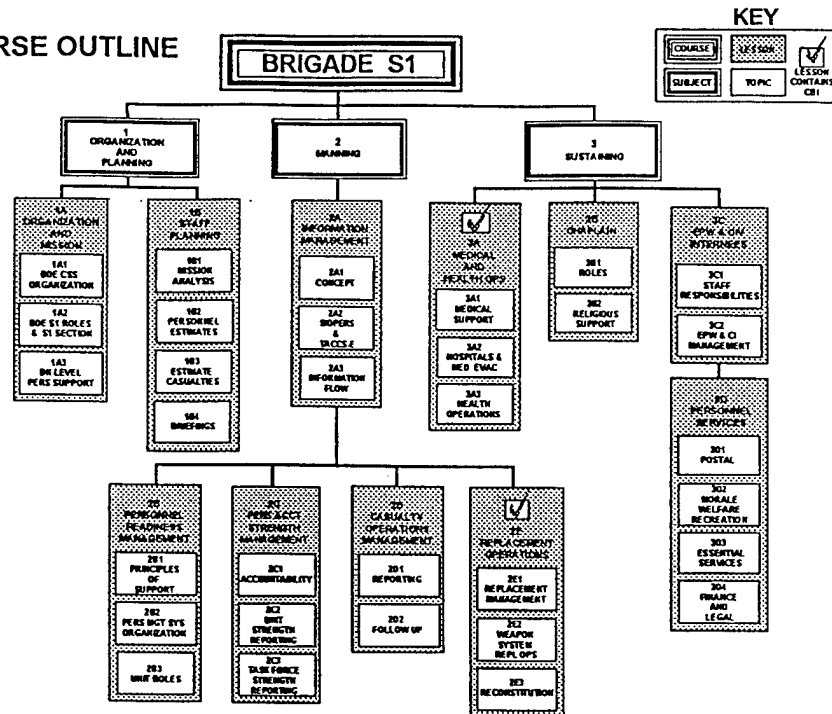
FM 8-10 *Health Service Support in a Theater of Operations*
FM 12-6 *Personnel Doctrine*
FM 19-40 *Enemy Prisoners of War, Civilian Internees, and Detained Persons*
FM 63-20 *The Forward Support Battalion*
FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*
FM 71-3 *Armored and Mechanized Infantry Brigade*
FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored
Brigade, Battalion Task Force, and Company/Team*
FM 100-9 *Reconstitution*
FM 100-10 *Combat Service Support*
FM 101-5 *Staff Organization and Operations*

AR 600-8 *Military Personnel Management*
AR 600-8-6 *Personnel Accounting and Strength Reporting, Section V;*

Combined Arms Lessons Learned (CALL) Newsletter 91-1 *Rehearsals; April 1991*

ARI RP 94-02 *Commander's Battle Staff Handbook, Army Research Institute Fort
Benning Field Unit Research Project*

COURSE OUTLINE



BRIGADE S1 SUBJECTS: TASKS, CONDITIONS AND STANDARDS

TERMINAL LEARNING OBJECTIVE (TLO): The S1 is the brigade commander's principal staff officer for personnel support. The S1 will provide direction to the personnel assigned to him and is responsible for staff planning in support of operations. The S1 must: provide staff supervision to brigade units in the areas of information management; personnel readiness management; personnel accounting and strength reporting; casualty reporting; replacements; postal operations; morale, welfare, and recreation; and essential personnel services. The S1 also must: coordinate finance and legal services, public affairs, chaplain activities, medical support, and coordinate military police support to the tactical plans and operations.

TASK 1: ORGANIZATION AND PLANNING

TASK 1A: Identify the combat duties of the S1, the organization of the personnel section, their combat locations, and functions.

CONDITIONS: Given a course of instruction and access to FM 12-6 *Personnel Doctrine*, chapter 11; FM 71-3 *Armored and Mechanized Infantry Brigade*, chapters 1, 2, and 7; FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team*, chapter 8; FM 101-5 *Staff Organization and Operations*, chapters 2, 3, and 8; and TC 12-17 *Adjutants Call the S1 Handbook*, chapter 7.

STANDARDS: Definitions must be in accordance with FM 12-6 and FM 71-3. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- Identify the S1 staff responsibilities.
- Identify the elements of the S1 section, their locations and responsibilities.

TASK 1B: Identify the S1 role in the staff planning process.

CONDITIONS: Given a course of instruction and access to FM 12-6 *Personnel Doctrine*, chapters 10, 11, and 12; FM 71-3 *Armored and Mechanized Infantry Brigade*, chapters 1, 2, and 7; FM 101-5 *Staff Organization and Operations*, chapters 4, 5, 6, 7, and appendixes B, C, E, and G; FM 101-10-1/2 *Staff Officers Field Manual*, chapters 4 and 5; TC 12-17 *Adjutants Call the S1 Handbook*, appendixes C and AA; and FC 71-6 *Battalion and Brigade Command and Control*, chapter 2 and appendixes C, D, and G.

STANDARDS: Definitions must be in accordance with FM 71-3 and FC 71-6. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- Identify the steps the S1 performs in conducting mission analysis.
- Discriminate between facts and assumptions.
- Analyze higher commander's mission and intent.
- Estimate friendly casualties.
- Identify the elements of the personnel estimate.

TASK 2: MANNING

TASK 2A: Define the information management systems available to the brigade S1, and their uses.

CONDITIONS: Given a course of instruction and access to FM 12-6 *Personnel Doctrine*, chapter 5; FM 600-8 *Military Personnel Management*; TC 12-17 *Adjutants Call the S1 Handbook*, chapter 7; and TM 11-7010-213-12-12 *Tactical Army Combat Service Support Computer System - AN/TQY-33(V)*.

STANDARDS: Definitions must be in accordance with FM 12-6. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- Identify the capabilities and functions of Standard Installation and Division Personnel System (SIDPERS) and Tactical Army Combat Service Support Computer System (TACCS).
- Identify the management of personnel information throughout the brigade.

TASK 2B: Identify the actions employed by the S1 to achieve and maintain personnel readiness.

CONDITIONS: Given a course of instruction and access to FM 12-6 *Personnel Doctrine*, chapter 1, 11, and 12; FM 100-16 *Army Operational Support*, chapter 6; TC 12-17 *Adjutants Call the S1 Handbook*; and AR 600-8 *Military Personnel Management*.

STANDARDS: Definitions must be in accordance with FM 12-6 and FM 100-16. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- Analyze personnel strength data to determine current combat capabilities and advise the brigade commander on future needs.
- Identify the Bde S1 actions and responsibilities in achieving and maintaining personnel readiness.

TASK 2C: Identify the elements of the Personnel Accounting and Strength Reporting management system.

CONDITIONS: Given a course of instruction and access to AR 600-8-6 *Personnel Accounting and Strength Reporting*; FM 12-6 *Personnel Doctrine*, chapter 2; and TC 12-17 *Adjutants Call the S1 Handbook*, chapter 7.

STANDARDS: Definitions must be in accordance with FM 12-6 and TC 12-17.

- Identify personnel accounting procedures and functions.
- Identify the strength reports used by battalion and brigade.
- Identify command and control relationships and their effects on personnel accounting and strength reporting.

TASK 2D: Identify the process used to record, report, verify and manage casualty information.

CONDITIONS: Given a course of instruction and access to FM 12-6 *Personnel Doctrine*, chapter 3; FM 100-10 *Combat Service Support*, chapter 4; and TC 12-17 *Adjutants Call the S1 Handbook*, chapter 7

STANDARDS: Definitions must be in accordance with FM 12-6 and TC 12-17. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- Identify casualty information recording procedures.
- Identify casualty information reporting responsibilities.

TASK 2E: Identify the brigade responsibilities in the replacement management process.

CONDITIONS: Given a course of instruction and access to FM 12-6 *Personnel Doctrine*, chapter 4; and FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team*, chapter 8.

STANDARDS: Definitions must be in accordance with FM 12-6 and FM 71-123. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam.*

- Identify uses, advantages and disadvantages of reconstitution, reorganization, and regeneration.
- Identify S1 responsibilities, functions, and coordination requirements for weapon system replacement operations (WSRO).

TASK 3: SUSTAINING

TASK 3A: Identify medical support requirements and health operations functions for which the S1 has staff responsibility.

CONDITIONS: Given a course of instruction and access to FM 8-10 *Health Service Support in a Theater of Operations*, chapters 3 and 4; FM 63-20 *Forward Support Battalion*, chapter 9; and FM 100-10 *Combat Service Support*, chapter 3.

STANDARDS: Definitions must be in accordance with FM 8-10 and FM 100-10.

- Identify levels of medical care.
- Identify the modular concept of medical support.
- Identify major causes of non-combat casualties.
- Identify the role of physical fitness and preventive medicine in maintaining combat readiness.
- Identify the effects of stress.

TASK 3B: Identify religious personnel and support provided the brigade.

CONDITIONS: Given a course of instruction and access to FM 16-1 *Religious Support Doctrine: The Chaplain and Chaplain Assistant*, chapters 1 and 5; FM 100-10 *Combat Service Support*, chapter 4; and RB 1-1 *Unit Ministry Team Handbook*, chapter 4.

STANDARDS: Definitions must be in accordance with FM 16-1 and FM 100-10.

- a. Identify chaplain and unit ministry team roles.
- b. Identify religious support operating principles.

TASK 3C: Identify the S1 role in handling enemy prisoners of war and civilian internees (EPW/CI).

CONDITIONS: Given a course of instruction and access to FM 19-40 *Enemy Prisoners of War, Civilian Internees and Detained Persons*, chapters 1,2, and 5; and TC 12-17 *Adjutants Call the S1 Handbook*, chapter 7.

STANDARDS: Definitions must be in accordance with FM 19-40 and TC 12-17.

- a. Explain the differences between enemy prisoners of war (EPW) and civilian internees (CIs).
- b. Identify legal requirements that guide the proper handling of EPW/CI.
- c. Identify staff responsibilities and coordination requirements for handling EPW/CI.

TASK 3D: Identify personnel services and how they are managed by the brigade S1.

CONDITIONS: Given a course of instruction and access to FM 12-6 *Personnel Doctrine*, chapters 6, 7, and 8; and FM 100-10 *Combat Service Support*, chapter 4

STANDARDS: Definitions must be in accordance with FM 12-6 and FM 100-10.

- a. Identify postal support of the brigade.
- b. Identify morale, welfare and recreation programs that enhance the combat readiness of the brigade.
- c. Identify essential services managed by the brigade S1.
- d. Identify the S1 responsibilities in providing legal and financial support to the brigade.

Brigade S1 Course References

- FM 8-10 *Health Service Support in a Theater of Operations*
- FM 12-6 *Personnel Doctrine*
- FM 12-15 *Wartime Casualty Reporting*
- FM 12-16 *Replacement Operations*
- FM 14-7 *Finance Operations*
- FM 16-1 *Religious Support Doctrine: The Chaplain and Chaplain Assistant*
- FM 16-5 *The Chaplain and Chaplain Assistant in Combat Operations*
- FM 19-40 *Enemy Prisoners of War, Civilian Internees and Detained Persons*
- FM 21-10 *Field Hygiene and Sanitation*
- FM 21-20 *Physical Fitness for Soldiers*
- FM 22-9 *Soldier Performance in Continuous Operations*
- FM 26-2 *Management of Stress in Army Operations*
- FM 27-1 *Legal Guide for the Commander*
- FM 27-10 *Law and Land Warfare*
- FM 63-20 *Forward Support Battalion*
- FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*
- FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*
- FM 71-3 *Armored and Mechanized Infantry Brigade*
- FM 100-5 *Operations*
- FM 100-10 *Combat Service Support*
- FM 100-16 *Army Operational Support*
- FM 101-5 *Staff Organization and Operations*
- FM 101-5-1 *Operational Terms and Graphics*
- FM 101-10-1 *Staff Officers Field Manual - Organizational, Technical, and Logistical Data, Volume 1*
- FM 101-10-2 *Staff Officers Field Manual - Organizational, Technical, and Logistical Data, Volume 2*

- AR 190-8 *Enemy Prisoners of War: Administration, Employment, and Compensation*
- AR 215-1 *MWR Activities and Non-Appropriated Fund Instrumentalities*
- AR 220-1 *Unit Status Reporting Procedures*
- AR 220-10 *Process for Overseas Movement of Units (POM)*
- AR 600-8 *Military Personnel Management*
- AR 600-8-1 *Army Casualty and Memorial Affairs and Line of Duty Investigations*
- AR 600-8-3 *Unit Postal Operations*
- AR 600-8-6 *Personnel Accounting and Strength Reporting*
- AR 600-10 *The Army Casualty System*
- AR 600-200 *Enlisted Personnel Management*
- AR 611-201 *Enlisted Career Management Fields and Military Occupational Specialties*
- AR 623-105 *Officer Evaluation Reporting System*
- AR 623-205 *Enlisted Evaluation Reporting System*
- AR 624-100 *Active Duty Officer Promotion System*
- AR 630-5 *Leaves and Passes*
- AR 630-10 *Absent Without Leave (AWOL) and Desertion*
- AR 635-200 *Enlisted Personnel Management*
- AR 640-2-1 *Personnel Qualification Records*
- AR 672-5-1 *Military Awards*

- CGSC Student Text 101-5 *The Tactical Decision-Making Process*

- DA Pam 25-30 *Consolidated Index of Army Publications and Blank Forms*
- DA Pam 600-8-1 *Unit Level Procedures/SIDPERS*

- FC 71-6 *Battalion and Brigade Command and Control*

- MCM *Manual for Courts Martial*

Course References,continued

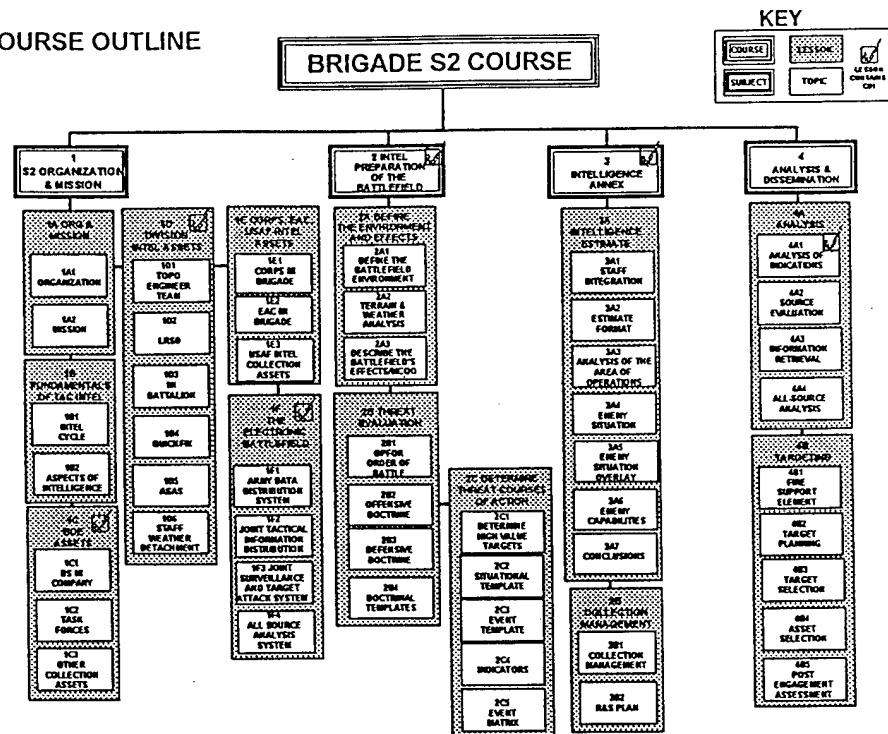
Personnel Service Support Common Collective Tasks (Platoon thru Division)

RB 1-1 *Unit Ministry Team (UMT) Handbook*

TC 12-17 *Adjutant's Call the S-1's Handbook*

TM 11-7010-213-12 *Operator's and Organizational Maintenance Manual for
Tactical Army Combat Service Support Computer System
AN/TYQ-33(V)*

COURSE OUTLINE



BRIGADE S2 SUBJECTS: TASKS, CONDITIONS, AND STANDARDS

TERMINAL LEARNING OBJECTIVE (TLO): The brigade S2 must be able to support the commander's information needs about the environment of operations and the threat, where combat is waged simultaneously throughout the depth of the battlefield. This support must be anticipatory and precise. He must also be able to perform as a member of the brigade battle staff, providing information, assistance, and coordination within his area of interest.

TASK 1: S2 ORGANIZATION AND MISSION

TASK 1A: Identify the organization and mission of the brigade S2.

CONDITIONS: Given a course of instruction and access to FM 34-1, *Intelligence and Electronic Warfare* (dtd 27 Sep 94); and FM 34-80, *Brigade and Battalion Intelligence and Electronic Warfare Operations* (dtd 15 Apr 86).

STANDARDS: Descriptions must be in accordance with FM 34-1 and FM 34-80.

Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- Identify the organization of the brigade S2 section.
- Identify the mission of the brigade S2 section.
- Identify the two major areas of responsibility of the brigade S2, and what they entail.
- Identify the six tasks that a brigade S2 must perform to support the command with tactical intelligence.

TASK 1B: Identify the fundamentals of intelligence, especially tactical intelligence.

CONDITIONS: Given a course of instruction and access to FM 34-1, *Intelligence and Electronic Warfare* (dtd 27 Sep 94); and FM 34-80, *Brigade and Battalion Intelligence and Electronic Warfare Operations* (dtd 15 Apr 86).

STANDARDS: Descriptions must be in accordance with FM 34-1 and FM 34-80. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Identify the five phases of the intelligence cycle and the sequence in which they are performed.
- b. Identify the three levels of intelligence.
- c. Identify the four standards of intelligence.
- d. Identify the three elements/disciplines of tactical intelligence.
- e. Identify brigade and division sources of information, and categorize them according to the three elements of tactical intelligence.

TASK 1C: Identify the various organizations, organic, attached, under the operational control of, or in direct support to the brigade that can provide tactical intelligence or information of tactical intelligence value.

CONDITIONS: Given a course of instruction and access to FM 34-80, *Brigade and Battalion Intelligence and Electronic Warfare* (dtd 15 Apr 1986).

STANDARDS: Descriptions must be in accordance with FM 34-80. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Identify the various units either organic, attached, under the operational control of, or in direct support to the brigade that can provide information of tactical intelligence.
- b. Identify the subordinate elements of a direct support military intelligence company, their mission, and capabilities.
- c. Identify the intelligence collection capabilities of the subordinate task forces of the brigade.
- d. Identify the intelligence collection capabilities of the direct support artillery battalion, engineers, forward support battalion, chemical defense, military police, and aviation units.
- e. Identify the assistance that special staff officers responsible for air force, Army aviation, artillery, engineer, and chemical defense can provide the brigade S2.

TASK 1D: Identify the various assets organic to or in support of the heavy division that can provide tactical intelligence information of tactical intelligence value.

CONDITIONS: Given a course of instruction and access to FM 34-10, *Division Intelligence and Electronic Warfare*.

STANDARDS: Descriptions must be in accordance with FM 34-10 and this lesson. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Identify the capabilities of the topographic engineer terrain detachment.
- b. Identify the general capabilities and employment considerations for Quickfix.
- c. Identify the current and future structures of the MI battalion in a heavy division.
- d. Identify the intelligence collection assets of the MI battalion of a heavy division.
- e. Identify the general capabilities of the all source analysis system.
- f. Identify the capabilities of the staff weather officer.
- g. Identify the capabilities and general employment considerations of the long range surveillance detachment.

TASK 1E: Identify the organizations, capabilities, and employment of corps, echelons above corps, and Air Force intelligence collection assets.

CONDITIONS: Given a course of instruction and access to FM 34-25, *Corps Intelligence and Electronic Warfare Operations* (dtd 30 Sep 87); and FM 34-37, *Echelons Above Corps (EAC) Intelligence and Electronic Warfare Operations* (dtd 15 Jan 91).

STANDARDS: Descriptions must be in accordance with FM 34-25 and FM 34-37. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Identify the organization of the MI brigade at corps, and the missions of the three battalions.
- b. Identify the organization of the MI brigade at echelons above corps, and the missions of the seven battalions.
- c. Identify the Air Force assets and capabilities in support of the Army intelligence collection effort.

TASK 1F: Identify the components of the Army Data Distribution System and the Joint Tactical Information Distribution System, and how they relate to the functional area of intelligence.

CONDITIONS: Given a course of instruction fundamentals of the ADDS and JTIDS initiatives as they relate to the functional area of intelligence.

STANDARDS: Descriptions must be in accordance with those outlined in this lesson. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Identify the components of the Army Data Distribution System pertaining to the functional area of intelligence.
- b. Identify the divisional intelligence systems included in the ADDS program and how they interface with each other.
- c. Identify the corps intelligence collection capabilities and how they interface in the ADDS system.
- d. Identify the components of the Joint Tactical Information Distribution System (JTIDS) pertaining to the functional area of intelligence.
- e. Identify the capabilities and products of the joint surveillance and target attack radar system (JSTARS).
- f. Identify the interface between the components of JSTARS, AWACS, Guardrail, LONGBOW, Enhanced Position and Location Reporting System (EPLRS), and the Air Force's Enemy Situation Correlation Element (ENSCE).
- g. Identify the end result of the advances in digital data interface correlation of intelligence information as it pertains to the brigade S2.

TASK 2: INTELLIGENCE PREPARATION OF THE BATTLEFIELD

TASK 2A: Identify the tasks required for the development of intelligence preparation of the battlefield, and determine the battlefield environment and effects.

CONDITIONS: Given a course of instruction and access to FM 34-130, *Intelligence Preparation of the Battlefield* (dtd 8 Jul 94) and FM 34-81-1, *Battlefield Weather Effects* (dtd 23 Dec 92).

STANDARDS: Descriptions must be in accordance with FM 34-130. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Identify the four steps to intelligence preparation of the battlefield.

- b. Define the battlefield environment, to include the area of operation, battle space, and area of influence for the brigade.
- c. Perform terrain analysis, using military aspects of terrain (observation and fields of fire, cover and concealment, obstacles, key terrain, and avenues of approach).
- d. Describe the battlefield's effects on both friendly and threat courses of action.

TASK 2B: Evaluate the threat in terms of organization and doctrine.

CONDITIONS: Given a course of instruction and Heavy OPFOR Handbook that accompanies the student handout material in this course.

STANDARDS: Descriptions must be in accordance with the Heavy OPFOR Threat Handbook. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Identify the organization of OPFOR motorized rifle and tank regiments and equipment.
- b. Identify the organization of OPFOR motorized rifle and tank battalions and equipment.
- c. Identify the equipment and its uses in an OPFOR artillery, air defense, engineer, and helicopter organizations organic to a motorized rifle or tank regiment.
- d. Identify the frontages and depths of OPFOR battalions, regiments, and divisions in the offense.
- e. Identify the objectives for platoon through division in the offense.
- f. Identify the frontages and depths of OPFOR battalions, regiments, and divisions in the defense, to include the security zone.
- g. Identify the OPFOR method of weighting attacks and defenses.
- h. Develop doctrinal templates for company, battalion, and regimental offense and defense tactics.

TASK 2C: Determine which courses of action are open to the threat, and based on the analysis of the effects of terrain, weather, doctrine, and objectives, which course of action the threat will adopt.

CONDITIONS: Given a course of instruction and access to FM 34-130, *Intelligence Preparation of the Battlefield* (dtd 8 Jul 94) and FM 34-81-1, *Battlefield Weather Effects* (dtd 23 Dec 92), and FM 34-1, *Intelligence and Electronic Warfare* (dtd 27 Sep 94).

STANDARDS: Descriptions must be in accordance with FM 34-1 and FM 34-130. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Determine threat high value targets.
- b. Develop situational templates, threat courses of action, based on doctrinal templates, terrain, weather, and objectives.
- c. Develop an event template, named areas of interest, an event matrix, and a scenario of expected threat events/decisions.
- d. Determine courses of action based on indications already observed, doctrine, and decision points.

TASK 3: INTELLIGENCE ANNEX

TASK 3A: Identify the tasks required for the development of an intelligence estimate.

CONDITIONS: Given a course of instruction and access to FM 101-5, *Appendix G*.

STANDARDS: Descriptions must be in accordance with FM 101-5. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Identify the staff coordination required to develop an intelligence estimate.
- b. Identify the intelligence estimate format.
- c. Identify the analysis of the area of operations contents (terrain analysis, using military aspects of terrain observation and fields of fire, cover and concealment, obstacles, key terrain, and avenues of approach).
- d. Identify the requirements for describing the enemy situation.
- e. Identify the requirements for an enemy situation overlay.
- f. Identify the requirements that must be listed to accurately represent the enemy capabilities.
- g. Identify the requirements that must be listed to accurately portray what significant activities of the enemy.
- h. Identify the requirements to portray the enemy courses of action, to include advantages and disadvantages of each.
- i. Identify the requirements to portray the most probable course of enemy action.
- j. Identify other means of disseminating intelligence information, such as the INTSUM and PERINTREP.

TASK 3B: Identify the tasks required for collection management and the development of a collection plan.

CONDITIONS: Given a course of instruction and access to FM 34-2, *Collection Management, Chapter 2, (dtd 20 Oct 90)*.

STANDARDS: Descriptions must be in accordance with FM 34-2. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Identify the purpose of collection management.
- b. Identify the three functional areas of collection management.
- c. Determine the brigade commander's PIR based on certain factors.
- d. Determine named areas of interest for the brigade and the specific actions expected to occur at those points.
- e. Determine collection requirements.
- f. Select the best asset to collect the identified requirements.
- g. Identify the proper tools that can be used in collection management to develop and manage the collection plan.
- h. Identify the requirements for a brigade reconnaissance and surveillance plan.

TASK 4: ANALYSIS AND TARGETING

TASK 4A: Identify the tasks required for analysis of combat information and the production of combat intelligence.

CONDITIONS: Given a course of instruction and access to FM 34-3 *Intelligence Analysis (dtd 15 Mar 90)*.

STANDARDS: Descriptions must be in accordance with FM 34-3. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Identify the three functional areas of intelligence analysis.
- b. Identify the use of indicators in intelligence analysis.
- c. Identify the requirements for source evaluation.
- d. Identify the requirements for information storage and retrieval, both manual and automatic data processing.
- e. Identify the functions of all source analysis.

TASK 4B: Identify the steps in targeting and the differences between target types.

CONDITIONS: Given a course of instruction and access to FM 6-20-10, *Tactics, Techniques, and Procedures for The Targeting Process*, chapters 1, 2, 4, 5, and appendices A, B, C, E, and J, and FM 6-20-40 *Tactics, Techniques and Procedures for Fire Support for Brigade Operations (Heavy)*, chapter 2 and Appendix G.

STANDARDS: Identify targeting elements according to FM 6-20-10, and FM 6-20-40. Demonstrate mastery of the following performance measures by achieving a score of 80% or higher on the lesson exam:

- a. Identify the definition and purpose of targeting.
- b. Identify targeting types.
- c. Identify examples of lethal and nonlethal targeting.
- d. Identify the types of targeting effects.
- e. Identify the differences between on-call, priority, and schedule of fires.
- f. Identify the commander who initiates and stops final protective fires (FPF).
- g. Identify the target sets.
- h. Identify elements of the targeting process.
- i. Identify key personnel and tools used in targeting.
- k. Identify differences between deliberate and quick fire planning procedures.
- l. Identify different target symbol types.

Brigade S2 Course References

FM 6-20-10 *Tactics, Techniques, and Procedures for the Targeting Process*
FM 6-121 *Tactics, Techniques, and Procedures for Field Artillery Target Acquisition*
FM 34-1 *Intelligence and Electronic Warfare Operations*
FM 34-2 *Collection Management*
FM 34-2-1 *Reconnaissance and Surveillance and Intelligence Support to*
FM 34-3 *Intelligence Analysis*
FM 34-8 *Combat Commander s Handbook on Intelligence*
FM 34-25 *Corps Intelligence and Electronic Warfare*
FM 34-80 *Brigade and Battalion Intelligence and Electronic Warfare*
FM 34-81 *Weather Support for Army Tactical Operations*
FM 34-81-1 *Battlefield Weather Effects*
FM 34-130 *Intelligence Preparation of the Battlefield*

- d. Identify critical S3 responsibilities in the areas of operations and organization of the brigade.
- e. Identify the members of the S3 staff section and the roles they play in the various command and control facilities.
- f. Identify critical staff integration activities between the S3 and selected staff members.

TASK 1B: Identify critical components of tactical decision-making process used by the S3 to conduct mission planning.

CONDITIONS: Given a course of instruction and access to FM 101-5 *Staff Organization and Operations* and CGSC Student Text 101-5 *Tactical Decision-Making Process*, February 1995.

STANDARDS: Descriptions must be in accordance with FM 101-5 and include the following:

- a. Identify the four tools that the commander has available to assist him in conducting problem solving.
- b. Identify the factors of METT-T analysis.
- c. Identify specified and implied tasks.
- d. Identify the role of the commander's intent.
- e. Identify the role staff estimates, estimate of the situation, and troop leading procedures play in the decision-making process.
- f. Identify other critical components of mission planning.
- g. Identify critical components of course of action development.
- h. Identify critical components of course of action analysis.
- i. Identify critical components of course of action comparison.
- j. Identify critical components of issuing the order.

TASK 2: COMBAT SUPPORT

TASK 2A: Identify capabilities, limitations and key personnel associated with providing fire support for brigade operations.

CONDITIONS: Given a course of instruction and access to FM 6-20-40 *Tactics, Techniques, and Procedures for Fire Support for Brigade Operations(Heavy)*, Appendix A, and FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, Chapter 7.

STANDARDS: Description must be in accordance with FM 6-20-40 and FM 71-123 and include the following:

- a. Identify the components of the fire support system.
- b. Identify the fire support assets in brigade and division artillery.
- c. Identify the target acquisition assets in brigade and division artillery.
- d. Identify models available for planning.
- e. Identify MLRS employment considerations.
- f. Identify naval gunfire fire support assets.
- g. Identify naval aviation fire support assets.
- h. Identify the personnel involved in planning naval gunfire/aviation.
- i. Identify naval gunfire/aviation employment procedures.

TASK 2B: Identify capabilities, limitations, equipment, and key personnel associated with providing engineer support for brigade operations.

CONDITIONS: Given a course of instruction and access to FM 5-71-100 *Division Engineer Combat Operations*, chapter 1; FM 5-100 *Engineer Combat Operations*, chapter 2 and appendix A; and FM 71-123 *Tactics and Techniques for Combined*

Arms Heavy Forces; Armored Brigade, Battalion Task Force, and Company Team, chapter 7, section on engineer support.

STANDARDS: Descriptions must be in accordance with FM 5-71-100 and FM 5-100 and include the following:

- a. Identify the roles and responsibilities of the brigade engineer and assistant brigade engineer.
- b. Identify the information that the brigade engineer needs from the supported maneuver unit in order to facilitate engineer support.
- c. Identify the information the brigade engineer must provide the supported maneuver unit.
- d. Identify the engineer support that a maneuver brigade and its subordinate maneuver battalion task forces will receive.
- e. Identify critical employment considerations for combat engineers in both the offense and defense.
- f. Identify the various engineer equipment available to support the maneuver brigade.

TASK 2C: Identify capabilities, limitations, and key personnel associated with obtaining aviation support for the brigade.

CONDITIONS: Given a course of instruction and access to FM 1-111 *Aviation Brigades*, chapters 1, 4, and 5; FM 1-112 *Tactics, Techniques, and Procedures for the Attack Helicopter Battalion*, chapters 1 and 3; FM 6-20-40 *Tactics, Techniques, Procedures for Fire Support for Brigade Operations (Heavy)*, appendix A; and FM 71-123 *Tactics, Techniques, and Procedures for Combined Arms Heavy Force and Armor Brigade, Battalion/Task Force and Company*, chapter 7.

STANDARDS: Description must be in accordance with FM 6-20-40 and FM 71-123 and include the following:

- a. Identify Air Force fire support assets.
- b. Identify the personnel involved in planning TACAIR.
- c. Identify the S3 Air s responsibility in TACAIR planning.
- d. Identify TACAIR employment procedures.
- e. Identify attack helicopter battalion missions.
- f. Identify the organizational elements and planning considerations for JAAT operations.
- g. Identify fire control and graphic control measures normally associated with JAAT operations.

TASK 2D: Identify established procedures and guidelines and air defense assets employed to support the maneuver brigade.

CONDITIONS: Given a course of instruction and access to FM 44-100 *US Army Air Defense Operations*, Chapters 1, 3, and 4 - 8; and FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team, Chapter 7*.

STANDARDS: Identification must be in accordance with FM 44-100 and include the following:

- a. Identify the three types of counterair operations.
- b. Identify the command relationship between maneuver and supporting air defense units.
- c. Identify the organization of a heavy ADA battalion.
- d. Identify the organization of a heavy ADA battery.
- e. Identify the duties of the air defense coordinator (ADCOORD).
- f. Identify the four principles of ADA employment.

- g. Identify the role of the commander's air defense priorities.
- h. Identify air defense planning factors.
- i. Identify ADA employment guidelines.
- j. Define rules of engagement and their application.
- k. Define early warning procedures and their application.
- l. Identify key components of the early warning system.

TASK 2E: Identify nuclear, biological, chemical (NBC) and smoke operational concerns associated with brigade operations in a chemical environment.

CONDITIONS: Given a course of instruction and access to FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team*, chapter 7 and appendix G

STANDARDS: Identification of NBC and smoke requirements to support the brigade will be in accordance with FM 71-123 and include the following:

- a. Identify the US position on the use of NBC contaminants.
- b. Identify what tactical actions a commander can take to prepare his unit to operate in an NBC environment.
- c. Identify the role of the brigade chemical officer.
- d. Identify the organization of the brigade chemical section.
- e. Identify the duties and responsibilities of the chemical section in the main command post (CP).
- f. Identify critical planning and employment considerations in an NBC environment.
- g. Identify key personnel involved in smoke operations planning.
- h. Identify the four applications of smoke
- i. Identify the three types of screening smoke.
- j. Identify the seven means that can provide smoke for tactical situations.
- k. Identify critical planning and employment considerations for the use of smoke.

TASK 2F: Identify the brigade's requirements for airspace command and control, and the role and responsibilities of the S3 Air in the airspace management and Army airspace command and control (A²C²) architecture.

CONDITIONS: Given a course of instruction and access to FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, Appendix A and E; FM 100-42, *US Air Force/US Army Airspace Management in an Area of Operations*, Chapters 1-4; FM 100-103, *Army Airspace Command and Control in a Combat Zone*, Chapters 1-5; FM 100-103-1, *ICAC2, Multi-Service Procedures for Integrated Combat Airspace Command and Control*, Chapters 1-4 and Appendices A-E; and FM 100-103-2, *TAGS, Multi-Service Procedures for the Theater Air Ground System*, Chapters 2-5 and 7.

STANDARDS: Descriptions must be in accordance with FM 6-20-40, FM 100-42, FM 100-103, and this lesson, and includes the following:

- a. Identify the fundamentals of airspace command and control and the theater air ground operations system.
- b. Describe procedural versus positive methods of control.
- c. Determine the organization, roles, and missions of the Army airspace command and control structure.
- d. Determine the organization, roles, and missions of the Air Force airspace command and control structure.
- e. Determine the organization, roles, and missions of the Navy and Marine Corps airspace command and control structure.
- f. Determine the methods of deconfliction for Army airspace users.
- g. Determine the methods of deconfliction for Air Force airspace users.

- h. Determine the methods of deconfliction for Navy and Marine Corps airspace users.

TASK 2G: Identify control measures used to coordinate and communicate Army airspace command and control(A²C²) and joint airspace management measures.

CONDITIONS: Given a course of instruction and access to FM 1-100, *Doctrinal Principles for Army Aviation in Combat Operations*, Appendix H; FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, Appendix A and E; FM 100-42, *US Air Force/US Army Airspace Management in an Area of Operations*, Chapters 1-4; FM 100-103, *Army Airspace Command and Control in a Combat Zone*, Chapters 1-5.

STANDARDS: Descriptions must be in accordance with FM 6-20-40, FM 100-42, FM 100-103, and this lesson, and include the following:

- a. Determine the best airspace control measure for a given situation in a combat environment.
- b. Determine the requirements for each airspace management control measure.
- c. Determine whether an airspace control measure is restrictive or non-restrictive.
- d. Determine the controlling authority for each airspace management control measure.
- e. Identify operational control measures that complement, reinforce, or supplement airspace control measures.
- f. Identify fire control measures that complement, reinforce, or supplement airspace control measures.
- g. Identify those items that must be included in a brigade airspace command and control standard operating procedure.
- h. Identify the integrated effort towards Army airspace command and control and information networking required at the brigade and battalion level.

TASK 3: SUPERVISE EXECUTION

TASK 3A: Identify command and control techniques used to prepare the brigade for a mission once the operation order is issued.

CONDITIONS: Given a course of instruction and access to FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*, chapters 2, 3, and 4; FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team*, chapter 2; and CALL Newsletter 91-1 *Rehearsals*, April 1991.

STANDARDS: Descriptions must be in accordance with FM 71-2 and include the following:

- a. Identify the three types of briefings used to confirm subordinate understanding of the mission and situation.
- b. Identify the variables that impact on the type of rehearsal selected by the command
- c. Identify the purpose of rehearsals and the three levels of rehearsals.
- d. Identify the eight rehearsal methods.
- e. Identify the purpose of orders groups.
- f. Identify critical rehearsal planning, preparation, and execution techniques.

TASK 3B: Identify the general organizations, functions, and capabilities of the brigade tactical, main, and rear command posts.

CONDITIONS: Given a course of instruction and access to FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task*

Force, and Company Team, chapter 1; and FM 101-5 *Staff Organization and Operations*, chapter 8 and appendix B.

STANDARDS: Descriptions must be in accordance with FM 71-123 and include the following:

- a. Identify the three brigade command and control facilities.
- b. Identify the organizations of the tactical (TAC) and main CPs.
- c. Identify critical equipment and capabilities of the tactical (TAC) and main CPs.
- d. Identify critical considerations for moving the main CP.
- e. Identify techniques and procedure for battle tracking.
- f. Identify the use of journals, the situation map, and map posting procedures.
- g. Identify critical actions used when integrating updated information and adjusting the plan.

Brigade S3 Course References

- FM 1-111 *Aviation Brigades*
FM 1-112 *Tactics, Techniques, and Procedures for the Attack Helicopter Battalion*
FM 5-71-100 *Division Engineer Combat Operations*
FM 5-100 *Engineer Combat Operations*
FM 6-20-40 *Tactics, Techniques, and Procedures for Fire Support for Brigade Operations(Heavy)*
FM 44-100 *US Army Air Defense Operations*
FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*
FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*
FM 100-42 *US Air Force/US Army Airspace Management in an Area of Operations*
FM 100-103 *Army Airspace Command and Control in a Combat Zone,*
FM 100-103-1 *ICAC2, Multi-Service Procedures for Integrated Combat Airspace Command and Control*
FM 100-103-2 *TAGS, Multi-Service Procedures for the Theater Air Ground System*
FM 101-5 *Staff Organization and Operations*
ARI RP 94-02 *Brigade Battle Staff Handbook, Army Research Institute Fort Benning Field Research Product*
CGSC Student Text 101-5 *Tactical Decision-Making Process, Feb 95.*
CALL Newsletter 91-1 *Rehearsals, Apr 91*

COURSE OUTLINE

BRIGADE S3 AIR COURSE

KEY

COLUML	LESSON	<input checked="" type="checkbox"/> LESSON CONTAINS CW
SUBJECT	TOPIC	

1 S3 AIR DUTIES & ALCI

- 1A DUTIES
 - SA1 GENERAL
 - SA2 AIR GROUND OPERATIONS
 - SA3 ALCI
 - SA4 TARGETING
- 1B STAFF FUNCTIONS
 - SB1 AIR GROUND OPERATIONS
 - SB2 ALCI
 - SB3 TARGETING

2 AIR SYSTEMS

- 2A SYSTEMS
 - SA1 READY BOMB AVIATION BDE
 - SA2 ATTACK
 - SA3 UTILITY
 - SA4 BETA
- 2B AIR SUPPORT
 - SB1 ATTACK
 - SB2 LEFT
 - SB3 BETA
- 2C NAVIGATION
 - SC1 ATTACK
 - SC2 LEFT
 - SC3 BETA

3 AIRSPACE MANAGEMENT

- 3A INTEGRATED CAPABILITY (ICAP)
 - SA1 FUNDAMENTALS OF INTEGRATED AIRSPACE (I)
 - SA2 ARMY AGE & ALCI
 - SA3 NAVY AGE & ALCI
 - SA4 NAVY AGE & ALCI
 - SA5 BOMB AGE & ALCI
 - SA6 JOINT RECONSTRUCTION PROJECTS
- 3B CONTROL AREA DISBURS
 - SB1 AIRSPACE CONTROL MEASURES
 - SB2 OPERATIONAL CONTROL MEASURES
 - SB3 FIRE CONTROL MEASURES
 - SB4 BOMBING AIRSPACE MANAGEMENT

4 AIR GROUND OPERATIONS

- 4A INTEGRATED AIR SUPPORT
 - SA1 CLOSE AIR SUPPORT
 - SA2 PLANNING & COORDINATION REQUIREMENTS
 - SA3 REQUESTING CLOSE AIR SUPPORT
 - SA4 COMMAND & CONTROL OF CAS
 - SA5 TACTICAL AIRLIFT AND RECCO
- 4B STAFFING & COORDINATION
 - SB1 AIR ASSET TASK FORCES
 - SB2 STAFF AND CHIEF OF STAFF COORDINATION
 - SB3 AIR ASSET TASK FORCES
 - SB4 COMMAND & CONTROL
 - SB5 AIR ASSET PLANNING

TERMINAL LEARNING OBJECTIVE (TLO): The brigade S3 Air must be able to support the commander's multi-service air support and air space management needs where combat is waged simultaneously throughout the depth of the battlefield. This support must be anticipatory and precise. He must also be able to perform as a member of the brigade battle staff, providing information, assistance, and coordination within his area of interest.

TASK 1A: Identify the duties of the brigade assistant S3, who fulfills the responsibilities as the S3 Air, for Army airspace command and control, air ground operations, and targeting.

STANDARDS: Descriptions must be in accordance with Fms 71-3 and FM 100-103 and include the following:

- A-38

- d. Identify the role and responsibilities of the S3 Air in the fire support element/targeting team.
- e. Identify the role and responsibilities of the S3 Air in the planning and execution of close air support by Air Force, Navy, and Marine aircraft.

TASK 1B: Identify Army airspace command and control, air ground operations, and targeting staff integration that the brigade staff must exercise with the brigade S3 Air.

CONDITIONS: Given a course of instruction and access to FM 1-100, *Doctrinal Principles for Army Aviation in Combat Operations*, Chapter 1; FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, Chapter 1; FM 55-15, *Transportation Reference Data*, Chapter 2; FM 71-3, *Armored and Mechanized Infantry Brigade*, Chapter 2; FM 90-4, *Air Assault Operations*, Appendix G; FM 100-42, *US Air Force/US Army Airspace Management in an Area of Operations*, Chapters 1-4; FM 100-103, *Army Airspace Command and Control in a Combat Zone*, Chapter 4.

STANDARDS: Descriptions must be in accordance with FMs 6-20-40, 71-3, 90-4, 100-42, 100-103 and include the following:

- a. Describe the staff integration that must occur between the S3 Air and the S2 for air ground operations, RISTA, and targeting.
- b. Describe the staff integration that must occur between the S3 Air and the S4 and division transportation air liaison officer (TALO) for air ground operations and aerial transportation/lift.
- c. Describe the staff integration that must occur between the S3 Air and the fire support coordinator/fire support officer (FSCOORD/FSO) for air ground operations, RISTA, and aerial and suppression of enemy air defense targeting.
- d. Describe the staff integration that must occur between the S3 Air and the Air Defense Coordinator (ADCOORD) for air ground operations, RISTA, and suppression of enemy air defense targeting.
- e. Describe the staff integration that must occur between the S3 Air and the tactical air control party/forward air controller (TACP/FAC) for air ground operations, RISTA, and targeting.
- f. Describe the staff integration that must occur between the S3 Air and the aviation brigade liaison officer for air ground operations, RISTA, and targeting.
- g. Describe the staff integration that must occur between the S3 Air and the supporting arms liaison team (SALT) or air naval gunfire liaison company (ANGLICO) for naval/marine air ground operations, RISTA, and targeting.
- h. Describe the staff integration that must occur between the S3 Air and the G3 Air for air ground operations, RISTA, and targeting.

TASK 2: AIR SYSTEMS

TASK 2A: Identify Army airframes and organizations that would normally support a heavy maneuver brigade in the execution of brigade air ground operations, RISTA, and targeting.

CONDITIONS: Given a course of instruction and access to FM 1-111, *Aviation Brigades*, Chapters 1, 4, and 5; FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, Appendix A; FM 34-8, *Commander's Handbook for Intelligence and Electronic Warfare*; and FM 55-15, *Transportation Reference Data*, Chapter 2.

STANDARDS: Descriptions must be in accordance with FMs 1-100, 1-111, 6-20-40, 34-8, 55-15, and includes the following:

- a. Identify the organization of the aviation brigade assigned to a heavy division.
- b. Identify the capabilities, limitations, and missions of attack helicopters, to include ordnance.

- c. Identify the capabilities, limitations, and missions of general utility and cargo helicopters.
- d. Identify the capabilities, limitations, and missions of intelligence and electronic warfare aircraft, to include unmanned aerial vehicles.

TASK 2B: Identify Air Force airframes and that would normally support a heavy maneuver brigade in the execution of brigade air ground operations, RISTA, and targeting.

CONDITIONS: Given a course of instruction and access to FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, Appendix A; FM 34-8, *Commander's Handbook for Intelligence and Electronic Warfare*; and FM 55-15, *Transportation Reference Data*, Chapter 2.

STANDARDS: Descriptions must be in accordance with FMs 6-20-40, 34-8, 55-15, and include the following:

- a. Identify the capabilities, limitations, and roles of the A10, F15E, F16, F111F, and F117 attack aircraft, to include ordnance.
- b. Identify the capabilities, limitations, and roles of the F15, F16, and F22 fighter aircraft, to include ordnance.
- c. Identify the capabilities, limitations, and roles of the B1, B2, and B52G bomber aircraft, to include ordnance.
- d. Identify the capabilities, limitations, and roles of the C130, C17, C141, and C5 lift aircraft, to include payloads.
- e. Identify the capabilities, limitations, and roles of the Predator RPV, TR1, RF4G, and SR71 reconnaissance and electronic warfare aircraft, to include ordnance (if any).

TASK 2C: Identify Navy and Marine Corps airframes and that would normally support a heavy maneuver brigade in the execution of brigade air ground operations, RISTA, and targeting.

CONDITIONS: Given a course of instruction and access to FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, Appendix A and FM 55-15, *Transportation Reference Data*, Chapter 2.

STANDARDS: Descriptions must be in accordance with FMs 6-20-40, 55-15, and this lesson, and include the following:

- a. Identify the capabilities, limitations, and missions of the following Navy and USMC attack, jet fighter bomber, and interceptor aircraft: AH-1W Seacobra, A-6E Intruder, AV-8B Harrier, F-14 Tomcat, F-18 Hornet, to include ordnance.
- b. Identify the capabilities, limitations, and missions of the CH-53E Super Stallion and CH-46 Sea Knight.
- c. Identify the intelligence and electronic warfare capabilities, limitations, and missions of the EA-6B Prowler and E-2C Hawkeye.

Task 3: AIRSPACE MANAGEMENT

TASK 3A: Identify the brigade's requirements for airspace command and control, and the role and responsibilities of the S3 Air in the airspace management and Army airspace command and control(A²C²) architecture.

CONDITIONS: Given a course of instruction and access to FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, Appendix A and E; FM 100-42, *US Air Force/US Army Airspace Management in an Area of Operations*, Chapters 1-4; FM 100-103, *Army Airspace Command and Control in a Combat Zone*, Chapters 1-5; FM 100-103-1, *ICAC2, Multi-Service Procedures for Integrated Combat Airspace*

Command and Control, Chapters 1-4 and Appendices A-E; and FM 100-103-2, *TAGS, Multi-Service Procedures for the Theater Air Ground System*, Chapters 2-5 and 7.

STANDARDS: Descriptions must be in accordance with FMs 100-103, 100-103-1, 100-103-2 and this lesson, and include the following:

- a. Identify the fundamentals of airspace command and control and the theater air ground operations system.
- b. Describe procedural versus positive methods of control.
- c. Determine the organization, roles, and missions of the Army airspace command and control structure.
- d. Determine the organization, roles, and missions of the Air Force airspace command and control structure.
- e. Determine the organization, roles, and missions of the Navy and Marine Corps airspace command and control structure.
- f. Determine the methods of deconfliction for Army airspace users.

TASK 3B: Identify control measures used to coordinate and communicate Army airspace command and control(A²C²) and joint airspace management measures.

CONDITIONS: Given a course of instruction and access to FM 1-100, *Doctrinal Principles for Army Aviation in Combat Operations*, Appendix H; FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, Appendix A and E; FM 100-42, *US Air Force/US Army Airspace Management in an Area of Operations*, Chapters 1-4; FM 100-103, *Army Airspace Command and Control in a Combat Zone*, Chapters 1-5.

STANDARDS: Descriptions must be in accordance with FMs 6-20-40, 100-42, 100-103, and this lesson, and include the following:

- a. Determine the best airspace control measure for a given situation in a combat environment.
- b. Determine the requirements for each airspace management control measure.
- c. Determine whether an airspace control measure is restrictive or non-restrictive.
- d. Determine the controlling authority for each airspace management control measure.
- e. Identify operational control measures that complement, reinforce, or supplement airspace control measures.
- f. Identify fire control measures that complement, reinforce, or supplement airspace control measures.
- g. Identify those items that must be included in a brigade airspace command and control standard operating procedure.
- h. Identify the integrated effort towards Army airspace command and control and information networking required at the brigade and battalion level.
- g. Determine the methods of deconfliction for Air Force airspace users.
- h. Determine the methods of deconfliction for Navy and Marine Corps airspace users.

TASK 4: AIR GROUND OPERATIONS

TASK 4A: Identify the variety of joint service tactical air support missions, and the coordination, and planning inherently required by those missions.

CONDITIONS: Given a course of instruction and access to FM 1-100, *Doctrinal Principles for Army Aviation in Combat Operations*, Chapter 3; FM 1-111, *Aviation Brigades*, Appendix G; FM 1-112, *Attack Helicopter Battalion*, Chapter 3; FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, Appendix A; FM 90-15, *JAAT: Multi-Service Procedures for Joint Air Attack Teams*, Chapters 1-3 and Appendices B-I; FM 90-21, *J-SEAD: Multi-Service Procedures for the Joint Suppression of Enemy Air Defenses*, Chapters 2-4 and the Appendix; FM 100-

103, *Army Airspace Command and Control (A2C2)*; FM 100-103-1, *TAGS, Theater Air Ground System*; and FM 100-103-2, *ICAC2, Integrated Combat Airspace Command and Control*

STANDARDS: Descriptions must be in accordance with FMs 100-103, 100-103-1, 100-103-2, and this lesson, and include the following:

- a. Identify the three types of tactical air missions that interservice agencies can provide.
- b. Identify the requirements for immediate and pre-planned close air support sorties, to include approval chains, and methods of apportionment.
- c. Identify the planning considerations for tactical air reconnaissance sorties and targeting.
- d. Identify the planning considerations for tactical airlift sorties.

TASK 4B: Identify the variety of attack helicopter missions, control measures, and the coordination, and planning inherently required by those missions.

CONDITIONS: Given a course of instruction and access to FM 1-100, *Doctrinal Principles for Army Aviation in Combat Operations*, Chapter 3; FM 1-111, *Aviation Brigades*, Appendix G; FM 1-112, *Attack Helicopter Battalion*, Chapter 3; FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, Appendix A; FM 90-15, *JAAT: Multi-Service Procedures for Joint Air Attack Teams*, Chapters 1-3 and Appendices B-I; FM 90-21, *J-SEAD: Multi-Service Procedures for the Joint Suppression of Enemy Air Defenses*, Chapters 2-4 and the Appendix.

STANDARDS: Descriptions must be in accordance with FMs 1-111, 1-112, 6-20-40, 90-15, 90-21, and this lesson, and include the following:

- a. Identify the types of missions that attack helicopter units can perform.
- b. Identify the ground missions that attack helicopters can support.
- c. Identify the planning considerations for attack helicopters, and identify mission statements for such.
- d. Identify the control measures used in planning and controlling attack helicopter missions.
- e. Identify the normal command relationship between an attack helicopter unit and the supported ground maneuver force.
- f. Identify the composition of a joint air attack team, and the planning and coordination required to accomplish pre-planned and immediate JAAT missions.

TASK 4C: Identify the requirements for the planning, coordination, and employment of air assault operations in support of a heavy maneuver brigade.

CONDITIONS: Given a course of instruction and access to FM 1-100, *Doctrinal Principles for Army Aviation in Combat Operations*, Chapter 3; FM 71-3, *Armored and Mechanized Infantry Brigade*, Chapter 3; FM 90-4, *Air Assault Operations*, Chapters 1-3 and Appendices A, B, D, E, and F.

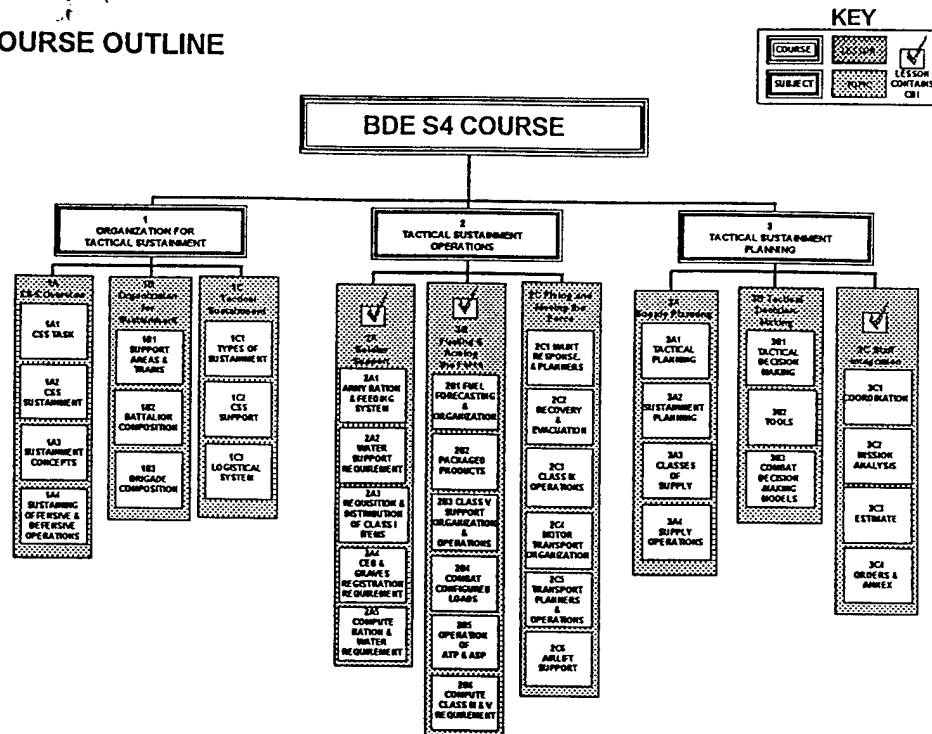
STANDARDS: Descriptions must be in accordance with FMs 71-3, 90-4, and this lesson, and include the following:

- a. Identify the task organization considerations for an air assault operation by a mechanized infantry unit.
- b. Identify command and control considerations for an air assault operation by a mechanized infantry unit.
- c. Identify staff synchronization that must occur to coordinate, plan, supervise, and execute for an air assault operation by a mechanized infantry unit.
- d. Identify tactical support for an air assault operation.
- e. Identify the requirements for the five plans needed to successfully conduct an air assault operation.

Brigade S3Air Course References

FM 1-100	<i>Doctrinal Principles for Army Aviation in Combat Operations</i>
FM 1-111	<i>Aviation Brigades</i>
FM 1-112	<i>Tactics, Techniques, and Procedures for the Attack Helicopter Battalion</i>
FM 6-20-40	<i>Tactics, Techniques, and Procedures for Fire Support for Brigade Operations(Heavy)</i>
FM 44-100	<i>US Army Air Defense Operations</i>
FM 55-12	<i>Movement of Units in Air Force Aircraft</i>
FM 55-15	<i>Transportation Reference Guide</i>
FM 71-2	<i>The Tank and Mechanized Infantry Battalion Task Force</i>
FM 71-3	<i>Armored and Mechanized Infantry Brigade</i>
FM 71-123	<i>Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team</i>
FM 90-4	<i>Air Assault Operations</i>
FM 90-15	<i>J-SEAD, Multi-Service Procedures for the Joint Suppression of Enemy Air Defenses</i>
FM 90-21	<i>JAAT, Multi-Service Procedures for the Joint Air Attack Team</i>
FM 90-25	<i>ALCO, Airlift for Combat Operations</i>
FM 100-5	<i>Operations</i>
FM 100-42	<i>US Air Force/US Army Airspace Management in an Area of Operations</i>
FM 100-103	<i>Army Airspace Command and Control in a Combat Zone,</i>
FM 100-103	<i>1ICAC2, Multi-Service Procedures for Integrated Combat Airspace Command and Control</i>
FM 100-103-2	<i>TAGS, Multi-Service Procedures for the Theater Air Ground System</i>
FM 101-5	<i>Staff Organization and Operations</i>
ARI RP 94-02	<i>Brigade Battle Staff Handbook, Army Research Institute Fort Benning Field Unit Research Project</i>

COURSE OUTLINE



BRIGADE S4 COURSE SUBJECTS: TASKS, CONDITIONS, AND STANDARDS

TERMINAL LEARNING OBJECTIVE (TLO): Provide a common level of understanding on the roles of the S4 in the planning, preparation, and execution of the logistical support system to accomplish the brigade commander's intent or mission.

TASK 1: ORGANIZATION FOR TACTICAL SUSTAINMENT

TASK 1A: Identify the components of the CSS system.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, FM 100-10 *Combat Service Support*, FM 101-5 *Staff Organization and Operations*, and *US Army Research Institute Fort Benning Field Unit Research Project Commander's Battle Staff Handbook*, March 1995.

STANDARDS: Description must be in accordance with FM 71-2, FM 71-123, and FM 100-10 and includes the following:

- Identify the six tasks of the CSS system.
- Identify the five sustainment imperatives.
- Identify CSS sustainment concepts.
- Identify CSS sustainment for Offensive, Defensive, Retrograde, and Deep Operations.

TASK 1B: Identify the brigade's organization for sustainment.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, FM 100-10 *Combat Service Support*, FM 101-5 *Staff Organization and Operations*, and *US Army Research Institute Fort Benning Field Unit Research Project Commander's Battle Staff Handbook*, March 1995.

STANDARDS: Description must be in accordance with FM 71-3, FM 71-123, and FM 100-10 and include the following:

- a. Identify support areas from Corps to battalion level.
- b. Identify the composition and location of the battalion trains.
- c. Identify the composition and location of the brigade trains.
- d. Identify the composition of the division CSS support.

TASK 1C: Identify the major tasks of the CSS system.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, FM 100-10 *Combat Service Support*, FM 101-5 *Staff Organization and Operations*, and US Army Research Institute Fort Benning Field Unit Research Project Commander's Battle Staff Handbook, March 1995.

STANDARDS: Description must be in accordance with FM 100-10 and include the following:

- a. Identify operational and tactical sustainment.
- b. Identify other areas that may provide sustainment to the brigade.
- c. Identify the categories of combat service support.
- d. Identify the major echelons of the Army logistical system.
- e. Identify the support forces that are available to the maneuver brigade.

TASK 2: TACTICAL SUSTAINMENT OPERATIONS

TASK 2A: Identify the Army field services and support system.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, FM 100-10 *Combat Service Support*, FM 101-5 *Staff Organization and Operations*, and US Army Research Institute Fort Benning Field Unit Research Project Commander's Battle Staff Handbook, March 1995.

STANDARDS: Description must be in accordance with FM 71-3, FM 71-123, and FM 100-10 and include the following:

- a. Identify the Army ration system.
- b. Identify the Army feeding system.
- c. Determine the water support requirements.
- d. Identify the procedure for the requisitioning and distribution of Class I items within the division.
- e. Identify Clothing Exchange and Bath (CEB) and graves registration requirements for the brigade.
- f. Compute ration and water requirements for the brigade.

TASK 2B: Identify the refueling and rearming process.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, FM 100-10 *Combat Service Support*, FM 101-5 *Staff Organization and Operations*, and US Army Research Institute Fort Benning Field Unit Research Project Commander's Battle Staff Handbook, March 1995.

STANDARDS: Description must be in accordance with FM 71-3, FM 71-123, and FM 100-10 and include the following:

- a. Identify the Class III organization structure.
- b. Identify the Class III forecasting system.
- c. Identify refueling methods.
- d. Identify package products.
- e. Identify the Class V organization structure.
- f. Identify the Class V forecasting structure.

- g. Identify combat configured loads.
- h. Identify the operations of the ammunition transfer point and ammunition supply point.
- i. Identify unit basic loads.
- j. Compute fuel requirements for the brigade.
- k. Compute ammunition requirements for the brigade.

TASK 2C: Identify the fixing and moving capabilities available to the brigade.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, FM 100-10 *Combat Service Support*, FM 101-5 *Staff Organization and Operations*, and *US Army Research Institute Fort Benning Field Unit Research Project Commander's Battle Staff Handbook*, March 1995.

STANDARDS: Description must be in accordance with FM 71-3, FM 71-123, and FM 100-10 and include the following

- a. Identify the different categories of maintenance.
- b. Identify maintenance terms.
- c. Identify key maintenance planners within the division.
- d. Identify the recovery and evacuation assets available to the brigade.
- e. Identify battle damage assessment and repair (BDAR) techniques.
- f. Identify repair time lines.
- g. Identify maintenance concepts.
- h. Identify Class IX supply operations.
- i. Identify transportation organization.
- j. Identify key transportation planners and operations.
- k. Identify airlift support capabilities.

TASK 3: TACTICAL SUSTAINMENT PLANNING

TASK 3A: Identify tactical sustainment planning functions of the brigade.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, FM 100-10 *Combat Service Support*, FM 101-5 *Staff Organization and Operations*, and *US Army Research Institute Fort Benning Field Unit Research Project Commander's Battle Staff Handbook*, March 1995.

STANDARDS: Description must be in accordance with FM 71-3, FM 71-123, and FM 100-10 and include the following:

- a. Identify tactical sustainment.
- b. Identify sustainment planning.
- c. Identify the ten classes of supply.
- d. Identify supply point, unit, and throughput distribution methods.
- e. Describe LOGPAC operations.

TASK 3B: Identify the tactical decision making process.

CONDITIONS: Given a course of instruction and access to FM 101-5 *Staff Organization, Operations* and CGSC Student Text 100-9 *Techniques and Procedures for Tactical Decision-Making*, July 1993 and *US Army Research Institute Fort Benning Field Unit Research Project Commander's Battle Staff Handbook*, March 1995.

STANDARDS: Descriptions must be in accordance with FM 101-5 and include the following:

- a. Identify the four tools that the commander has available to assist him in conducting problem solving.

- b. Identify the four factors of METT-T analysis.
- c. Identify specified and implied tasks contained in a mission statement.
- d. Identify the role of the commander's intent.
- e. Identify the role staff estimates play in the decision-making process.
- f. Identify the steps in the estimate of the situation and the role the estimate of the situation plays in the decision-making process.
- g. Identify the steps in troop-leading procedures and the role troop leading procedures play in the decision-making process.
- h. Identify the relationship between the factors of METT-T, the estimate of the situation, and troop-leading procedures.
- i. Identify the three decision-making models.
- j. Identify critical components of the deliberate decision-making model.
- k. Identify critical components of the combat decision-making model.
- l. Identify critical components of the quick decision-making model.

TASK 3C: Identify the coordination between the brigade S4 and the primary staff, the estimate process, and the parts of the logistic order and annex.

CONDITIONS: Given a course of instruction and access to FM 71-3 *Armored and Mechanized Infantry Brigade*, FM 100-10 *Combat Service Support*, FM 101-5 *Staff Organization and Operations*, and *US Army Research Institute Fort Benning Field Unit Research Project Commander's Battle Staff Handbook*, March 1995.

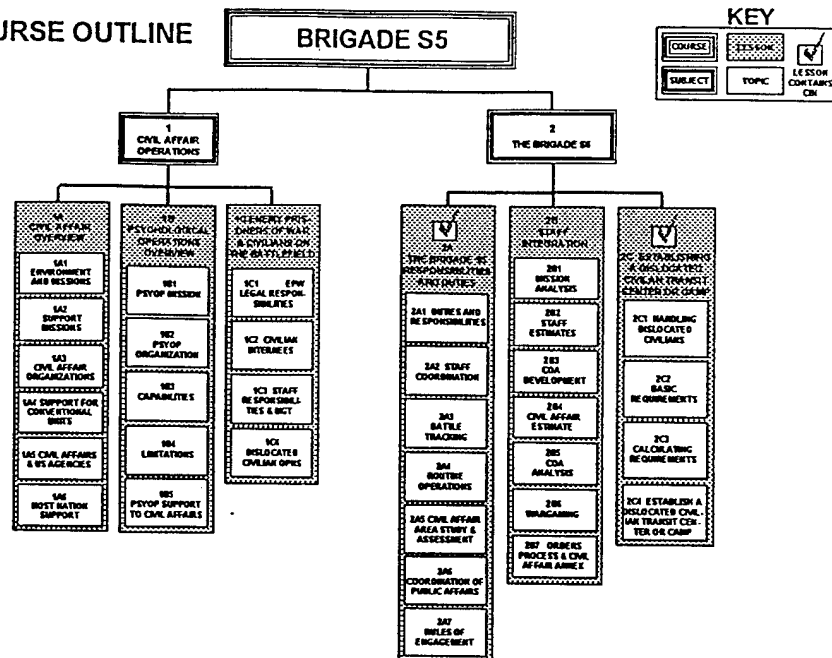
STANDARDS: Description must be in accordance with FM 71-3, FM 71-123, and FM 100-10 and include the following:

- a. Identify the coordination activities between the S4 and the primary staff.
- b. Identify the steps in mission analysis.
- c. Identify the estimate process and develop orders and annexes.
- d. Identify the parts of the logistic order and annex.

Brigade S4 Course References

AR 700-9	Policies of the Army Logistics System
AR 710-2	Supply Policy Below the Wholesale Level
FM 10-14-2	Guide for the Battalion S4
FM 10-13	Supply and Service Reference Data
FM 10-24	Ration Distribution Operations
FM 10-52	Field Water Supply
FM 43-5	Unit Maintenance Operations
FM 55-15	Transportation Reference Data
FM 63-2	Division Support Command, Armored, Infantry, and Mechanized Infantry Divisions
FM 63-20	Forward Support Battalion
FM 63-21	Main Support Battalion
FM 71-2	Tank and Mechanized Infantry Battalion Task Force
FM 71-123	Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company Teams
FM 100-5	Operations
FM 100-10	Combat Service Support
FM 101-5	Staff Organization and Operations
FM 101-5-1	Operational Terms and Symbols
FM 101-10-1/2	(Volumes 1 and 2) Staff Officers Field Manual: Organizational, Technical and Logistical Data, Planning Factors
FM 7-7J	The Mechanized Infantry Platoon and Squad
FM 7-10	The Infantry Company
FM 10-60	Subsistence Supply and Management in Theater of Operations
FM 10-63	Handling of Deceased Personnel in Theater of Operations
FM 8-55	Planning for Health Service Support
FM 20-22	Vehicle Recovery Operations
FM 29-19	Repair Parts Supply for a Theater of Operations
FM 55-40	Army Combat Service Support Air Transport Operations
FM 90-14	Rear Battle
FM 100-27	US Army/US Air Force Doctrine For Joint Airborne Tactical Airlift Operations
ARI RP 94-02	<i>Commander's Battle Staff Handbook</i> , Army Research Institute Fort Benning Field Unit
DA Pam 710-2-1	Using Unit Supply System Manual
DA Pam 710-2-2	The Supply Support Activity (SSA) Supply System

COURSE OUTLINE



BRIGADE S5 SUBJECTS: TASKS, CONDITIONS & STANDARDS

TERMINAL LEARNING OBJECTIVE (TLO): As the principal staff officer for the commander in all matters concerning the civilian impact on military operations and the political, economic, and social effects of military operations on civilian personnel, the brigade S5, or civil-military operations officer (CMO), has staff responsibility for those activities embracing the relationship among the military forces, the civilian authorities, and the population within the brigade's area of operation. He must have the knowledge to actively participate in tactical decision-making, and to plan and coordinate the effective integration of all civil affair assets in accomplishing the brigade commander's intent or mission.

SUBJECT 1: CIVIL AFFAIRS OPERATIONS

TASK 1A: Identify critical components of the civil affair mission, supporting missions, and the organizations that may assist the brigade S5.

CONDITIONS: Given a course of instruction and access to FM 41-10 *Civil Affairs Operations*, chapters 1 through 4.

STANDARDS: Descriptions must be in accordance with FM 41-10 and include the following:

- a. Identify critical components of the civil affair mission statement.
- b. Identify the four environmental factors that affect civil affair support to a host nation.
- c. Identify the types of civil affair supporting missions and the type of support provided in each mission.
- d. Identify the capabilities and limitation of various civil affair organizations.
- e. Identify the civil affair support provided to conventional forces.

- f. Identify key U.S. governmental agencies and their impact on civil-military operations.
- g. Determine requirements for host nation support and the types of support that may or may not be expected by conventional forces.

TASK 1B: Identify critical components of the psychological operations mission, support provided to the civil affair mission, and the psychological operation organizations that may assist the brigade S5.

CONDITIONS: Given a course of instruction and access to FM 33-1 *Psychological Operations*, chapters 1 through 4.

STANDARDS: Definitions must be in accordance with FM 33-1 and include the following:

- a. Identify critical components of the psychological operation (PSYOP) mission statement.
- b. Identify the critical support provided by PSYOP to support civil affair operations.
- c. Identify critical capabilities and limitations that may affect the PSYOP unit's mission.
- d. Identify selected missions of the enemy prisoner of war/civilian internee (EPW/CI) PSYOP battalion.
- e. Identify the capabilities and limitations of various PSYOP organizations.
- f. Identify critical criteria for the employment of PSYOP forces.

TASK 1C: Identify requirements, staff responsibilities and general management procedures for the handling of enemy prisoners of war (EPW), civilian internees (CI), and dislocated civilians.

CONDITIONS: Given a course of instruction and access to AR 190-8 *Enemy Prisoners of War, Administration, Employment and Compensation*, DA Pamphlet 27-25 *Prisoner of War: Rights and Obligations Under the Geneva Convention*, FM 12-6 *Personnel Doctrine*, chapter 10; FM 19-40 *Enemy Prisoners of War, Civilian Internees, and Detained Persons*, chapters 1-5; and FM 41-10 *Civil Affairs Operations*, chapter 10.

STANDARDS: Definitions must be in accordance with AR 190-8, FM 12-6, FM 19-40, and FM 41-10 and include the following:

- a. Explain the differences between enemy prisoners of war (EPW) and civilian internees (CIs).
- b. Identify the legal requirements and obligations in handling enemy prisoners of war and civilian internees.
- c. Identify staff responsibilities and coordination requirements in the handling of EPWs and CIs.
- d. Identify the critical aspects of EPW management.
- e. Identify proper definitions and categories of dislocated civilians.
- f. Identify the legal requirements and obligations in handling dislocated civilians.
- g. Identify staff responsibilities and coordination requirements in the handling of dislocated civilians.

SUBJECT 2: The BRIGADE S5

TASK 2A: Identify the responsibilities, duties, and critical coordination requirements for the brigade S5.

CONDITIONS: Given a course of instruction and access to FM 41-10 *Civil Affairs*, chapters 1, 3, and 10; and U.S. Army Research Institute Fort Benning Field Unit Research Product *Brigade Battle Staff Handbook*, pages 88-95.

STANDARDS: Descriptions must be in accordance with FM 41-10 and include the following:

- a. Identify the duties and responsibilities of the brigade S5.
- b. Identify critical staff coordination actions.
- c. Identify selected techniques used to assist in battle tracking.
- d. Identify selected techniques used to assist in routine operations.
- e. Define the difference between an area study and an area assessment.
- f. Identify the impact of public affairs on the civil affair mission.
- g. Identify the importance of rules of engagement (ROE) toward civil affair operations.

TASK 2B: Identify the key staff integration actions required by the S5 as part of the mission planning process.

CONDITIONS: Given a course of instruction and access to FM 41-10 *Civil Affairs*, appendices B and C; and CGSC Student Text 101-5 *The Tactical Decision-Making Process*, February 1995.

STANDARDS: Descriptions must be in accordance with FM 41-10 and include the following:

- a. Identify the four steps in mission analysis.
- b. Identify the difference between facts and assumptions.
- c. Identify the role staff estimates play in mission analysis.
- d. Identify the role the intelligence preparation of the Battlefield (IPB) plays in mission analysis.
- e. Identify key requirements of the civil affair estimate.
- f. Identify the role wargaming plays in the mission analysis process.
- g. Identify key requirements of the civil affair annex.

TASK 2C: Identify the requirements for establishing a temporary dislocated civilian transit center or camp.

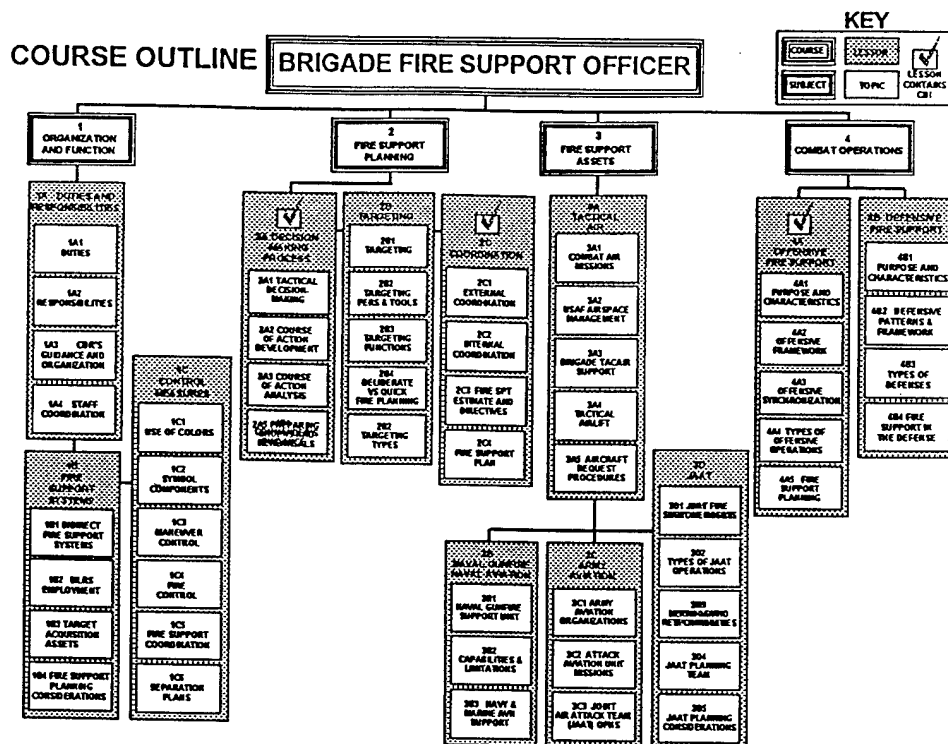
CONDITIONS: Given a course of instruction and access to FM 41-10 *Civil Affairs*, chapter 10; and FM 101-10-2 *Staff Officers Field Manual for Organizational, Technical, and Logistical Data Planning Factors*, Volume 2.

STANDARDS: Descriptions must be in accordance with FM 41-10 and include the following:

- a. Identify the minimum considerations for construction, administration, screening, medical care, supply, and sanitation for a dislocated civilian transit center or camp.
- b. Identify the minimum considerations for security of a dislocated civilian transit center or camp.
- c. Identify the minimum considerations for transportation for a dislocated civilian transit center or camp.
- d. Identify the minimum considerations for information dissemination within a dislocated civilian transit center or camp.
- e. Develop the requirements for a 1,200 man dislocated civilian transit center or camp.

Brigade S5 Course References

FM 12-6	<i>Personnel Doctrine</i>
FM 19-40	<i>Enemy Prisoners of War, Civilian Internees, and Detained Persons</i>
FM 33-1	<i>Psychological Operations</i>
FM 41-10	<i>Civil Affairs</i>
FM 101-10-1/2	<i>Staff Officers Field Manual for Organizational, Technical, and Logistical Data Planning Factors, Volume 2</i>
AR 190-8	<i>Enemy Prisoners of War, Administration, Employment and Compensation</i>
ARI RP 94-02	<i>Brigade Battle Staff Handbook, U.S. Army Research Institute Fort Benning Field Unit Research Product</i>
CGSC Student Text 101-5	<i>The Tactical Decision-Making Process</i>
DA Pamphlet 27-25	<i>Prisoner of War: Rights and Obligations Under the Geneva Convention</i>



BRIGADE FIRE SUPPORT OFFICER SUBJECTS: TASKS, CONDITIONS & STANDARDS

TERMINAL LEARNING OBJECTIVE (TLO): Provide the Brigade Fire Support Officer (FSO) the knowledge to actively participate in tactical decision-making, and to plan and coordinate the effective integration of all available fire support assets in accomplishing the brigade commander's intent or mission.

TASK 1: ORGANIZATION AND FUNCTION

TASK 1A: Identify the duties and responsibilities of the brigade fire support officer (FSO).

CONDITIONS: Given a course of instruction and access to FM 6-20-40 *Tactics, Techniques, and Procedures for Fire Support for Brigade Operations (Heavy)*, chapter 1; FM 71-3 *Armored and Mechanized Infantry Brigade*, chapter 6; FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapters 2 and 7; and U.S. Army Research Institute Fort Benning Field Unit Research Product *Brigade Commander's Battle Staff Handbook*, pages 95-106.

STANDARDS: Description must be in accordance with FM 6-20-40, FM 71-123, and FM 71-3 and include the following:

- Identify the FSO's primary duties.
- Identify FSO's responsibilities.
- Identify the fire support information required by the commander.
- Identify the information required by the FSO from the commander.
- Identify the brigade fire support organization.
- Identify the brigade FSO's working relationships.

TASK 1B: Identify the fire support systems available to the brigade FSO.

CONDITIONS: Given a course of instruction and access to FM 6-20-40 *Tactics, Techniques, and Procedures for Fire Support for Brigade Operations (Heavy)*, chapters 1, 2, and appendix A; FM 6-60 *Tactics, Techniques, Procedures for the Multiple Launch Rocket System (MLRS) Operations*, chapters 4 and 5; FM 6-121 *Tactics, Techniques, and Procedures for Field Artillery Target Acquisition*, chapters 1, 2, and 3; and FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapter 7.

STANDARDS: Description must be in accordance with FM 6-20-40, FM 6-60, and FM 6-121 and include the following:

- a. Identify the components of the fire support system.
- b. Identify the fire support assets in brigade and division artillery.
- c. Identify the target acquisition assets in brigade and division artillery.
- d. Identify models available for planning.
- e. Identify Multiple-Launch Rocket System (MLRS) employment considerations.

TASK 1C: Identify selected control measures.

CONDITIONS: Given a course of instruction and access to FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapters 3 and 4; and FM 101-5-1 *Operational Terms and Graphics*, chapters 1 and 2.

STANDARDS: Identification of selected control measures must be in accordance with FM 71-123 and FM 101-5-1 and include the following:

- a. Identify selected permissive fire support coordination measures.
- b. Identify selected restrictive fire support coordination measures.
- c. Identify boundaries.
- d. Identify an air space coordination area (ACA).
- e. Identify selected ground control measures.
- f. Identify selected fire control measures.
- g. Identify selected control measures used in the offense and defense.

TASK 2: FIRE SUPPORT PLANNING

TASK 2A: Identify the decision-making process and how it relates to fire support planning.

CONDITIONS: Given a course of instruction and access to FM 6-20-30 *Tactics, Techniques and Procedures for Fire Support for Corps and Division Operations*, chapter 1 and appendix B; FM 6-20-40 *Tactics, Techniques and Procedures for Fire Support for Brigade Operations (Heavy)*, chapter 2; FM 71-123 *Tactics, and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapter 1; and FM 101-5 *Staff Organization and Operations*, chapter 5.

STANDARDS: Description must be in accordance with FM 6-20-30, FM 6-20-40, FM 101-5, and 71-123, and include the following:

- a. Identify the definition and purpose of course of action development.
- b. Identify the definition and purpose of course of action analysis.
- c. Identify the definition and purpose of wargaming.
- d. Identify the definition and purpose of course of action comparison.

TASK 2B: Identify the steps in the targeting process and the types of targets.

CONDITIONS: Given a course of instruction and access to FM 6-20-10, *Tactics, Techniques, and Procedures for The Targeting Process*, chapters 1, 2, 4, 5, and appendices A, B, C, E, and J, and FM 6-20-40 *Tactics, Techniques and Procedures for Fire Support for Brigade Operations (Heavy)*, chapter 2 and appendix G.

STANDARDS: Identify targeting elements according to FM 6-20-10 and FM 6-20-40 and include the following:

- a. Identify the definition and purpose of targeting.
- b. Identify the various types of targets.
- c. Identify examples of lethal and nonlethal targeting.
- d. Identify the types of targeting effects.
- e. Identify the differences between on-call, priority, and schedule of fires.
- f. Identify the commander who initiates and stops final protective fires (FPF).
- g. Identify target sets.
- h. Identify elements of the targeting process.
- i. Identify key personnel and the tools used in targeting.
- j. Identify the differences between deliberate and quick fire planning procedures.
- k. Identify the different types of target symbols.

TASK 2C: Identify the external and internal coordination required by the fire support officer (FSO) to complete his fire support mission.

CONDITIONS: Given a course of instruction and access to FM 6-20-30 *Tactics, Techniques, and Procedures for Fire Support For Division and Corps*, chapter 2, and appendix D; FM 6-20-40 *Tactics, Techniques, and Procedures for Fire Support For Brigade (Heavy)*, chapter 2; and FM 101-5 *Staff Organization and Operations*, chapter 7 and appendix G.

STANDARDS: Description must be in accordance with FM 6-20-30 and FM 6-20-40 and include the following:

- a. Identify the external coordination required by the fire support officer (FSO) to complete his fire support mission.
- b. Identify the internal coordination required by the fire support officer (FSO) to complete his fire support mission.
- c. Identify selected portions of a fire support plan.
- d. Write a fires paragraph and fire support annex.

TASK 3: FIRE SUPPORT ASSETS

TASK 3A: Identify fire support capabilities, limitations, and key personnel associated with tactical air (TACAIR) operations.

CONDITIONS: Given a course of instruction and access to FM 1-111 *Aviation Brigades*, chapters 1, 4, and 5; FM 6-20-40 *Tactics, Techniques, Procedures for Fire Support for Brigade Operations (Heavy)*, appendix A; and FM 71-123 *Tactics, Techniques, and Procedures for Combined Arms Heavy Force and Armor Brigade, Battalion/Task Force and Company*, chapter 7.

STANDARDS: Description must be in accordance with FM 6-20-40 and FM 71-123 and include the following:

- a. Identify Air Force fire support assets.
- b. Identify the personnel involved in planning TACAIR.
- c. Identify the FSO's responsibility in TACAIR planning.
- d. Identify TACAIR employment procedures.

TASK 3B: Identify the fire support capabilities, limitations, and key personnel associated with naval gunfire and aviation.

CONDITIONS: Given a course of instruction and access to FM 6-20-40 *Tactics, Techniques, and Procedures for Fire Support for Brigade Operations (Heavy)*, appendix A; FM 6-20-50 *Tactics, Techniques, and Procedures for Fire Support for Brigade Operations (Light)*, appendix B; and FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapter 7.

STANDARDS: Descriptions must be in accordance with FM 6-20-40, FM 6-20-50, and FM 71-123 and include the following:

- a. Identify naval gunfire fire support assets.
- b. Identify naval aviation fire support assets.
- c. Identify the personnel involved in planning naval gunfire/aviation.
- d. Identify the FSO s responsibility in planning naval gunfire/aviation fire support.
- e. Identify naval gunfire/aviation employment procedures.

TASK 3C: Identify fire support capabilities, limitations, and key personnel associated with Army aviation.

CONDITIONS: Given a course of instruction and access to FM 6-20-40 *Tactics, Techniques, Procedures for Fire Support for Brigade Operations (Heavy)*, appendix A; and FM 71-123 *Tactics, Techniques, and Procedures for Combined Arms Heavy Force and Armor Brigade, Battalion/Task Force and Company*, chapter 7 and appendix E.

STANDARDS: Description must be in accordance with FM 6-20-40 and FM 71-123 and include the following:

- a. Identify Army aviation fire support assets assigned to a heavy division and corps.
- b. Identify the personnel involved in planning Army aviation.
- c. Identify the FSO s responsibilities in Army aviation planning.
- d. Identify Army attack aviation employment considerations and procedures.

TASK 3D: Identify the fire support capabilities, limitations, and key personnel associated with a joint air attack team (JAAT).

CONDITIONS: Given a course of instruction and access to FM 6-20-40 *Tactics, Techniques, Procedures for Fire Support for Brigade Operations (Heavy)*, appendix A; FM 71-3 *Armored and Mechanized Infantry Brigade*, chapter 6; and FM 71-123 *Tactics, Techniques, and Procedures for Combined Arms Heavy Force and Armor Brigade, Battalion/Task Force and Company*, chapter 7 and appendix E.

STANDARDS: Description must be in accordance with FM 6-20-40, FM 71-3, and FM 71-123 and include the following:

- a. Identify JAAT employment considerations.
- b. Identify the personnel involved in planning and coordinating a JAAT.
- c. Identify the FSO s responsibility in JAAT planning.
- d. Identify the assets that support a JAAT.

TASK 4: COMBAT OPERATIONS

TASK 4A: Identify offensive fire support requirements.

CONDITIONS: Given a course of instruction and access to FM 6-20-40 *Tactics, Techniques, and Procedures for Fire Support for Brigade Operations (Heavy)*, chapter 3; FM 71-3 *Armored and Mechanized Infantry Brigade*, chapter 3; and FM 71-12 *Tactics, Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapter 3.

STANDARDS: Descriptions must be in accordance with FM 6-20-40, FM 71-3, and FM 71-123 and include the following:

- Identify the characteristics of the offense.
- Identify fire support requirements for a passage of lines.
- Identify fire support requirements for a hasty attack.
- Identify fire support requirements for a deliberate attack.
- Identify fire support requirements for an exploitation.
- Identify fire support requirements for a pursuit.

TASK 4B: Identify defensive fire support requirements.

CONDITIONS: Given a course of instruction and access to FM 6-20-40 *Tactics, Techniques, and Procedures for Fire Support for Brigade Operations (Heavy)*, chapter 3; FM 71-3 *Armored and Mechanized Infantry Brigade*, chapter 4; and FM 71-123 *Tactics, Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapter 4.

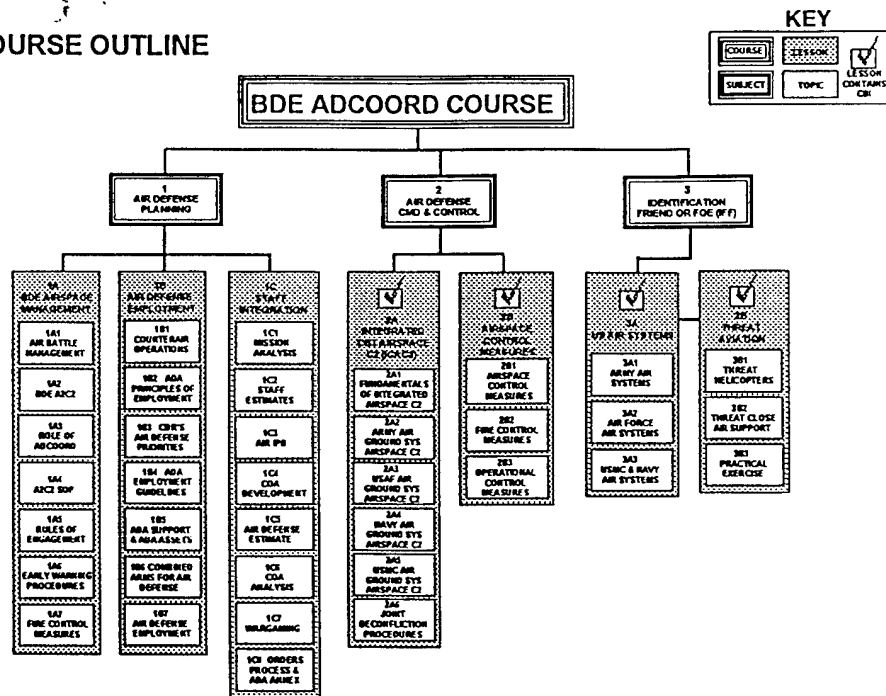
STANDARDS: Descriptions must be in accordance with FM 6-20-40, FM 71-3, and FM 71-123 and include the following:

- Identify the characteristics of defensive operations.
- Identify the fire support considerations for a defend in sector mission.
- Identify fire support considerations for a defense of a strong point and a battle position.
- Identify fire support considerations for a delay.
- Identify fire support considerations for a withdrawal.

Brigade Fire Support Officer Course References

- FM 1-111 *Aviation Brigades*
- FM 6-20-10 *Tactics, Techniques, and Procedures for the Targeting Process*
- FM 6-20-20 *Fire Support at Battalion and Below*
- FM 6-20-30 *Tactics, Techniques, and Procedures for Fire Support for Corps and Division Operations*
- FM 6-20-40 *Tactics, Techniques, and Procedures for Fire Support Brigade Operations (Heavy)*
- FM 6-20-50 *Tactics, Techniques, and Procedures for Fire Support Brigade Operations (Light)*
- FM 6-30 *Tactics, Techniques, and Procedures for Observed Fire*
- FM 6-60 *Tactics, Techniques, and Procedures for the Multiple Launch Rocket System (MLRS) Operations*
- FM 6-121 *Tactics, Techniques, and Procedures for Field Artillery Target Acquisition*
- FM 71-3 *Armored and Mechanized Infantry Brigade*
- FM 71-100 *Division Operations*
- FM 71-123 *Tactics, Techniques, and Procedures for Combined Arms Heavy Force and Armor Brigade, Battalion/Task Force and Company*
- FM 101-5 *Staff Organization and Operations*
- FM 101-5-1 *Operational Terms and Graphics*
- ARI RP 94-01 *Brigade Commander's Battle Staff Handbook, U.S. Army Research Institute, Fort Benning Field Unit Research Product*

COURSE OUTLINE



BDE ADCOORD COURSE SUBJECTS: TASKS, CONDITIONS & STANDARDS

TERMINAL LEARNING OBJECTIVE (TLO): As the air defense coordinator (ADCOORD) for the maneuver brigade, the air defense artillery officer (ADAO) must be the authority on both the principles and employment of his air defense assets. As the air defense special staff officer, the ADCOORD also needs to understand the operation of the battle staff and his participation in that organization. Finally, he must be an expert on the aircraft operating in a particular theater (both friendly and enemy) in order to provide early warning to the force, rapid engagement, and avoid incidents of fratricide (killing of one's own).

TASK 1: AIR DEFENSE PLANNING

TASK 1A: Identify the duties and responsibilities of the brigade Army airspace command and control (A²C²) element and the procedures used to manage brigade airspace.

CONDITIONS: Given a course of instruction and access to FM 44-100 *US Army Air Defense Operations*, chapter 7; FM 100-42 *US Air Force/US Army Airspace Management in an Area of Operations*; FM 100-103 *Army Airspace Command and Control in a Combat Zone*; and U.S. Army Research Institute Fort Benning Field Unit Research Product *Brigade Commander's Battle Staff Handbook*.

STANDARDS: Identification must be in accordance with Field Manuals 44-100, 100-42, 100-103, and include the following:

- Identify Air Battle Management controls.
- Identify the brigade A²C² element members and their functional areas of responsibility.
- Identify the major duties of the Air Defense Coordinator (ADCOORD).
- Identify the A²C² tasks performed or monitored by the S3 Air or the ADCOORD.

- e. Identify the methods of resolving conflicts between the commander's intent and the airspace control order (ACO).
- f. Define rules of engagement and their application.
- g. Define early warning procedures and their application.
- h. Identify key components of the early warning system.
- i. Identify selected supplemental fire control measures.

TASK 1B: Identify established procedures and guidelines used to employ air defense assets and the air defense assets available to support the brigade.

CONDITIONS: Given a course of instruction and access to FM 44-64 *FAAD Battalion and Battery Operation*, chapter 3; FM 44-100 *US Army Air Defense Operations*, chapters 4, 5, and 8; FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*, chapter 6; and USAADASCH Student Text 44-43-1 *BSFV Platoon and Squad Operation*.

STANDARDS: Descriptions must be in accordance with FM 44-100 and include the following:

- a. Identify the three types of counterair operations.
- b. Identify the four principles of ADA employment.
- c. Identify the role of the commander's air defense priorities.
- d. Identify air defense planning factors.
- e. Identify ADA employment guidelines.
- f. Identify the command relationship between maneuver and supporting air defense units.
- g. Identify the organization of a heavy ADA battery and ADA battalion.
- h. Identify the air defense capabilities of a Bradley Stinger Fighting Vehicle (BSFV).
- i. Identify selected employment techniques that support brigade missions.

TASK 1C: Identify the role of the air defense artillery officer as the brigade air defense coordinator (ADCOORD).

CONDITIONS: Given a course of instruction and access to FM 44-100 *US Army Air Defense Operations*, appendices A and B; FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*, chapters 2 and 3; and CGSC Student Text 101-5 *The Tactical Decision-Making Process*, February 1995.

STANDARDS: Descriptions must be in accordance with FM 44-100 and include the following:

- a. Identify the four steps in mission analysis.
- b. Identify the difference between facts and assumptions.
- c. Identify the role staff estimates play in mission analysis.
- d. Identify the role the intelligence preparation of the Battlefield (IPB) plays in mission analysis.
- e. Identify key requirements in the aerial IPB.
- f. Identify key requirements in the air defense estimate.
- g. Identify the role wargaming plays in the mission analysis process.
- h. Identify key requirements in the air defense annex.
- i. Identify the ADCOORD's role in the order briefing.

TASK 2: AIR DEFENSE COMMAND AND CONTROL

TASK 2A: Identify the brigade's requirements for airspace command and control in the airspace management and Army airspace command and control (A²C²) architecture.

CONDITIONS: Given a course of instruction and access to FM 6-20-40 *Fire Support for Brigade Operations (Heavy)*, appendices A and E; FM 100-42 *US Air Force/US Army Airspace Management in an Area of Operations*, chapters 1-4; FM 100-103 *Army Airspace Command and Control in a Combat Zone*, chapters 1-5; FM 100-103-1 *ICAC2, Multi-Service Procedures for Integrated Combat Airspace Command and Control*, chapters 1-4 and appendices A-E; and FM 100-103-2 *TAGS, Multi-Service Procedures for the Theater Air Ground System*, chapters 2-5 and 7.

STANDARDS: Descriptions must be in accordance with Field Manuals 6-20-40, 100-42, 100-103, this lesson, and include the following:

- Identify the fundamentals of airspace command and control and the theater air ground operations system.
- Describe procedural versus positive methods of control.
- Determine the organization, roles, and missions of the Army airspace command and control structure.
- Determine the organization, roles, and missions of the Air Force airspace command and control structure.
- Determine the organization, roles, and missions of the Navy and Marine Corps airspace command and control structure.
- Determine the methods of deconfliction for Army airspace users.
- Determine the methods of deconfliction for Air Force airspace users.
- Determine the methods of deconfliction for Navy and Marine Corps airspace users.

TASK 2B: Identify control measures used to coordinate and communicate Army airspace command and control (A²C²) and joint airspace management measures.

CONDITIONS: Given a course of instruction and access to FM 1-100 *Doctrinal Principles for Army Aviation in Combat Operations*, appendix H; FM 6-20-40 *Fire Support for Brigade Operations (Heavy)*, appendices A and E; FM 100-42 *US Air Force/US Army Airspace Management in an Area of Operations*, chapters 1-4; FM 100-103 *Army Air-space Command and Control in a Combat Zone*, chapters 1-5.

STANDARDS: Descriptions must be in accordance with Field Manuals 6-20-40, 100-42, 100-103, this lesson, and include the following:

- Determine the best airspace control measure for a given situation in a combat environment.
- Determine the requirements for each airspace management control measure.
- Determine whether an airspace control measure is restrictive or non-restrictive.
- Determine the controlling authority for each airspace management control measure.
- Identify operational control measures that complement, reinforce, or supplement airspace control measures.
- Identify fire control measures that complement, reinforce, or supplement airspace control measures.
- Identify those items that must be included in a brigade airspace command and control standing operating procedure (SOP).
- Identify the brigade and battalion staff integration required to maintain Army airspace command and control.

TASK 3: IDENTIFICATION FRIEND OR FOE (IFF)

TASK 3A: Identify Army, USAF, USMC, and Navy airframes and organizations that normally support heavy brigade air/ground operations; reconnaissance, intelligence, surveillance, and target acquisition(RISTA); and targeting.

CONDITIONS: Given a course of instruction and access to FM 1-111 *Aviation Brigades*, chapters 1, 4, and 5; FM 6-20-40 *Fire Support for Brigade Operations (Heavy)*, appendix A; FM 34-8 *Commander's Handbook for Intelligence and Electronic Warfare*; and FM 55-15 *Transportation Reference Data*, chapter 2.

STANDARDS: Descriptions must be in accordance with Field Manuals 1-111, 6-20-40, 34-8, 55-15, this lesson, and include the following:

- a. Identify the organization of the aviation brigade assigned to a heavy division.
- b. Identify the capabilities, limitations, and missions of the following Army attack helicopters: AH-1S Cobra, AH-64C/D Apache, and OH-58D Kiowa Warrior; to include ordnance.
- c. Identify the capabilities, limitations, and missions of the UH-60B Blackhawk.
- d. Identify the capabilities, limitations, and missions of the following Army utility cargo helicopters: UH-1H Iroquois, UH-60L Blackhawk, and CH-47D Chinook.
- e. Identify the capabilities, limitations, and missions of the following Army intelligence and electronic warfare aircraft: EH-60B Advanced Quickfix II, RC-12D Advanced Guardrail Common Sensor, OV-1D Mohawk, and the Hunter UAV.
- f. Identify the capabilities and limitations of the following Air Force single mission attack/fighter bomber aircraft: A-10 Thunderbolt II, F-117 Nighthawk to include ordnance.
- g. Identify the capabilities and limitations of the following Air Force dual mission attack/fighter bomber aircraft: F-15E Eagle (Mud Eagle), F-16 Fighting Falcon, to include ordnance.
- h. Identify the capabilities, limitations, and missions of the following Air Force bombers B-52 Stratofortress, B-1 Lancer, and B-2 Spirit, to include ordnance.
- i. Identify the capabilities and limitations of the following Air Force lift aircraft: C-130H Hercules, C-17A Globemaster II, C-141B Starlifter, and C-5B Galaxy.
- j. Identify the intelligence and electronic warfare capabilities and limitations of the EC-130E Volant Solo II, EC-130H Compass Call, EF-111A Raven, F4G Wild Weasel, TR-1A Senior Ruby, E-8A Joint Surveillance and Target Attack Radar System, and E-3 Airborne Warning and Control System (AWACS).
- k. Identify the capabilities, limitations, and missions of the following Navy and USMC attack, jet fighter bomber, and interceptor aircraft: AH-1W Seacobra, A-6E Intruder, AV-8B Harrier, F-14 Tomcat, F-18 Hornet, to include ordnance.
- l. Identify the capabilities, limitations, and missions of the CH-53E Super Stallion and CH-46 Sea Knight.
- m. Identify the intelligence and electronic warfare capabilities, limitations, and missions of the EA-6B Prowler and E-2C Hawkeye.
- n. Identify selected US Army, USAF, USMC, and Navy aircraft.

TASK 3B: Identify selected Threat helicopters and fixed-wing close air support (CAS) aircraft which operate in the forward battle area.

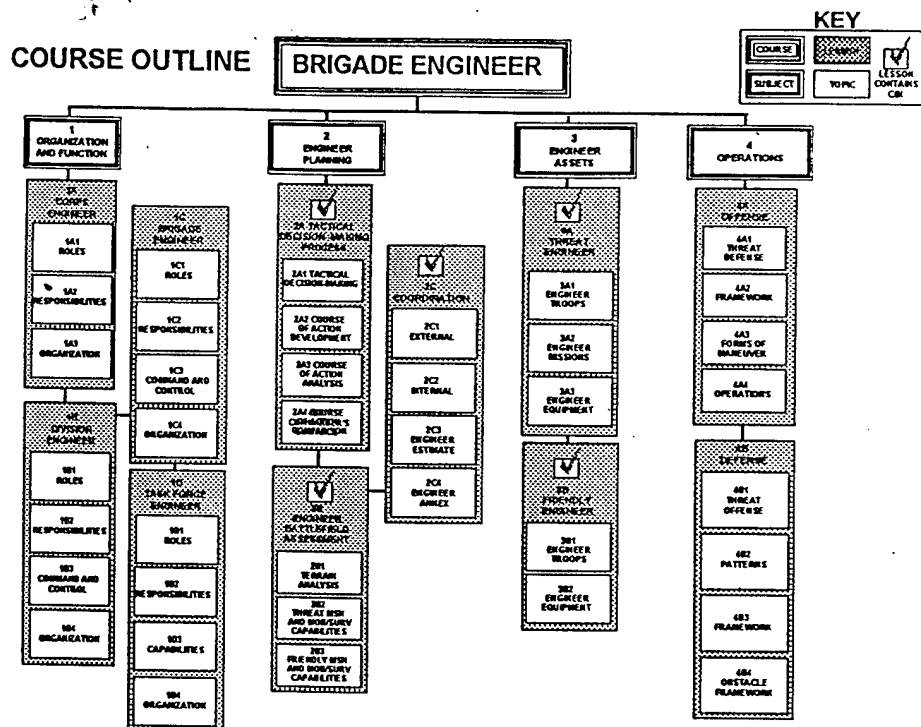
CONDITIONS: Given a course of instruction and access to FM 100-2-3 *The Soviet Army: Troops, Organization, and Equipment*, chapter 5; and Graphic Training Aid (GTA) 44-2-10 *Aircraft Recognition Playing Cards*.

STANDARDS: Identification must be in accordance with FM 100-2-3 and include the following:

- a. Correctly identify threat helicopters which operate in the forward battle area.
- b. Correctly identify threat fixed-wing close air support (CAS) aircraft which operate in the forward battle area.
- c. Conduct a practical exercise to determine if an aircraft is friend or foe.

Brigade Air Defense Coordinator (ADCOORD) Course

FM 1-100	<i>Doctrinal Principles for Army Aviation in Combat Operations</i>
FM 1-111	<i>Aviation Brigades</i>
FM 6-20-40	<i>Fire Support for Brigade Operations (Heavy)</i>
FM 34-8	<i>Commander's Handbook for Intelligence and Electronic Warfare</i>
FM 44-64	<i>FAAD Battalion and Battery Operation</i>
FM 44-100	<i>US Army Air Defense Operations</i>
FM 55-15	<i>Transportation Reference Data</i>
FM 71-2	<i>The Tank and Mechanized Infantry Battalion Task Force</i>
FM 100-2-3	<i>The Soviet Army: Troops, Organization, and Equipment</i>
FM 100-42	<i>US Air Force/US Army Airspace Management in an Area of Operations</i>
FM 100-103	<i>Army Airspace Command and Control in a Combat Zone</i>
FM 100-103-1	<i>ICAC2, Multi-Service Procedures for Integrated Combat Airspace Command and Control</i>
FM 100-103-2	<i>TAGS, Multi-Service Procedures for Theater Ground Systems</i>
ARI RP 94-02	<i>Brigade Commander's Battle Staff Handbook, U.S. Army Research Institute Fort Benning Field Unit Research Product</i>
CGSC Student Text 101-5	<i>The Tactical Decision-Making Process</i>
Graphic Training Aid (GTA) 44-2-10	<i>Aircraft Recognition Playing Cards</i>
USAADASCH Student Text 44-43-1	<i>BFVS Platoon and Squad Operation</i>



BRIGADE ENGINEER SUBJECTS: TASKS, CONDITIONS & STANDARDS

TERMINAL LEARNING OBJECTIVE (TLO): Provide the Brigade Engineer the knowledge to actively participate in tactical decision-making, and to plan and coordinate for the effective integration of all available engineer assets in accomplishing the brigade commander's intent or mission.

TASK 1: ORGANIZATION AND FUNCTION

TASK 1A: Identify the roles and organizations of the Corps Engineers.

CONDITIONS: Given a course of instruction and access to FM 5-71-100 *Division Engineer Combat Operations*, chapter 1; FM 5-100-15 *Corps Engineer Operations*, chapters 1, 2, and appendix D; and FM 5-100 *Engineer Combat Operations*, chapter 2 and appendix A.

STANDARDS: Description must be in accordance with FM 5-71-100, FM 5-100-15, and FM 5-100 and include the following:

- Identify the role of the corps engineer and assistant corps engineer (ACE).
- Identify the responsibilities of the corps engineer and assistant corps engineer (ACE).
- Identify engineer organizations found in a corps engineer brigade.
- Identify the engineer missions of corps engineer organizations.

TASK 1B: Identify the roles and organizations of the division engineers.

CONDITIONS: Given a course of instruction and access to FM 5-71-100 *Division Engineer Combat Operations*, chapters 1 and 2; FM 101-5 *Staff Organization and Operations*, chapter 3; and FM 5-100 *Engineer Combat Operations*, chapter 2 and appendix A.

STANDARDS: Description must be in accordance with FM 5-71-100, FM 101-5, FM 5-100, and include the following:

- a. Identify the role of the division engineer and assistant division engineer (ADE).
- b. Identify the responsibilities of the division engineer and assistant division engineer (ADE).
- c. Identify the engineer organizations of the division engineers.
- d. Identify the engineer missions of the division engineers.
- e. Identify selected capabilities of division engineer units.

TASK 1C: Identify the role and organization of the brigade engineer.

CONDITIONS: Given a course of instruction and access to FM 5-71-100 *Division Engineer Combat Operations*, chapter 1; FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapters 1 and 7; and FM 5-100 *Engineer Combat Operations*, chapter 2 and appendix A.

STANDARDS: Description must be in accordance with FM 5-71-100, FM 5-100, and include the following:

- a. Identify the role of the brigade engineer.
- b. Identify the responsibilities of the brigade engineer.
- c. Identify brigade engineer unit s mission.
- d. Identify brigade engineer organizations in the brigade.

TASK 1D: Identify the role and organization of the task force engineer.

CONDITIONS: Given a course of instruction and access to FM 5-71-100 *Division Engineer Combat Operations*, chapter 1; FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*, chapters 1 and 6; and FM 5-100 *Engineer Combat Operations*, chapter 2 and appendix A.

STANDARDS: Description must be in accordance with FM 5-71-100, FM 5-100, and include the following:

- a. Identify the role of the task force engineer.
- b. Identify the responsibilities of the task force engineer.
- c. Identify the missions of the task force engineer.
- d. Identify the task force engineer organization.

TASK 2: ENGINEER PLANNING

TASK 2A: Identify the tactical decision-making process and how it relates to engineer planning.

CONDITIONS: Given a course of instruction and access to FM 5-100, *Engineer Combat Operations*, chapters 3 and 4; FM 5-71-100, *Division Engineer Combat Operations*, chapter 2 and appendix A; and FM 101-5, *Staff Organization and Operations*, chapter 5.

STANDARDS: Description must be in accordance with FM 5-100, FM 5-71-100, FM 101-5, and include the following:

- a. Identify the purpose of course of action development.
- b. Identify the purpose of course of action analysis.
- c. Identify the purpose of course of action comparison.
- d. Differentiate between the engineer and engineer unit estimate.

- e. Identify the relationship between the tactical decision-making process and the engineer estimate.
- f. Perform mission analysis.

TASK 2B: Identify the engineer battlefield assessment process.

CONDITIONS: Given a course of instruction and access to FM 5-100, *Engineer Combat Operations*, chapters 3, 4, and 5; FM 5-71-100, *Division Engineer Combat Operations*, chapter 2 and appendix A; FM 34-130 *Intelligence Preparation of the Battlefield*, chapter 2; FM 5-33 *Terrain Analysis*, chapters 1, 2, 3, and appendix B; FM 101-5-1 *Operational Terms and Symbols*, chapters 1 and 2; and FM 5-7-30 *Brigade Engineer and Engineer Company Combat Operations (Airborne, Air Assault, Light)*, chapter 2 and appendix A.

STANDARDS: Description must be in accordance with FM 5-100, FM 5-71-100, FM 5-33, FM 5-7-30, FM 101-5-1, and include the following:

- a. Identify the major elements of the engineer battlefield assessment.
- b. Identify the military aspects of terrain.
- c. Identify selected items of interest used in terrain analysis.
- d. Identify critical subelements of enemy mission and mobility, survivability capability's analysis.
- e. Identify critical subelements of friendly mission and mobility, survivability capability's analysis.

TASK 2C: Identify the components of the engineer estimate, order and annex.

CONDITIONS: Given a course of instruction and access to FM 5-100, *Engineer Combat Operations*, chapters 3, 4, and 5; FM 5-71-100 *Division Engineer Combat Operations*, chapter 2 and appendices A and B; FM 5-7-30 *Brigade Engineer and Engineer Company Combat Operations (Airborne, Air Assault, Light)*, chapter 2 and appendices A and B; and FM 101-5 *Staff Organization and Operations*, chapter 7 and appendix G.

STANDARDS: Description must be in accordance with FM 5-100, FM 5-71-100, FM 5-7-30, FM 101-5, and include the following:

- a. Identify external coordination between the brigade engineer and the corps, division, and task force engineers.
- b. Identify internal coordination between the brigade engineer and the brigade battle staff.
- c. Identify the elements of the engineer estimate.
- d. Identify wargaming techniques used by the engineer staff officer.
- e. Identify the elements of the engineer order.
- f. Identify the elements of the engineer annex.

TASK 3: ENGINEER ASSETS

TASK 3A: Identify engineer organizations and vehicles associated with threat engineer forces.

CONDITIONS: Given a course of instruction and access to FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team*, chapters 3 and 4; TRADOC Pamphlet 350-16, *Heavy Opposing Forces (OPFOR) Tactical Handbook*, chapter 12 and U.S. Army *Combined Arms Command and Fort Leavenworth, Heavy Opposing Forces (OPFOR) Organization Guide*.

STANDARDS: Description must be in accordance with TRADOC Pamphlet 350-16, U.S. Army Combined Arms Command and Fort Leavenworth, Heavy Opposing Forces (OPFOR) Organization Guide, FM 71-123, and include the following:

- a. Identify engineer organizations located in an Army/Front, Division, and Regiment.
- b. Identify selected engineer subunits.
- c. Identify the responsibilities of selected engineer subunits.
- d. Identify selected threat engineer equipment and capabilities.

TASK 3B: Identify engineer equipment and units associated with friendly engineers.

CONDITIONS: Given a course of instruction and access to FM 5-100 *Engineer Combat Operations*, chapter 2; FM 5-101 *Mobility*, appendix B, and the *Engineer Systems Handbook*.

STANDARDS: Description must be in accordance with FM 5-100, FM 5-101, and include the following:

- a. Identify engineer equipment located in the engineer units of corps, division, brigade, and task force.
- b. Identify selected engineer subunits.
- c. Identify selected engineer subunits responsibilities.
- d. Identify selected engineer equipment and capabilities.

TASK 4: OPERATIONS

TASK 4A: Identify engineer support requirements to support brigade offensive operations.

CONDITIONS: Given a course of instruction and access to FM 5-100 *Engineer Combat Operation*, chapter 6; FM 5-71-100 *Division Engineer Combat Operation*, chapter 3; FM 71-3 *Armored and Mechanized Infantry Brigade*, chapter 3; FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team*, chapter 3; and TRADOC Pamphlet 350-16, *Heavy Opposing Forces (OPFOR) Tactical Handbook*, chapter 12.

STANDARDS: Identification of mobility requirements must be in accordance with FM 5-71-100, FM 5-100, FM 71-3, FM 71-123, TRADOC Pamphlet 350-16 and include the following:

- a. Identify threat obstacle employment and norms.
- b. Identify threat reconnaissance emphasis.
- c. Identify five breaching tenets.
- d. Identify four fundamentals of breaching.
- e. Identify elements supporting breach operations.
- f. Identify how threat engineers support defensive operations.
- g. Identify three lane marking patterns.
- h. Identify four types of breaching operations.
- i. Identify mobility considerations for types of brigade offensive operations.
- j. Identify steps in the breach planning sequence.
- k. Identify four types of breaching techniques.
- l. Identify threat minelaying methods.

TASK 4B: Identify engineer support requirements for a brigade defensive operation.

CONDITIONS: Given a course of instruction and access to FM 5-100 *Engineer Combat Operations*, chapter 7; FM 5-71-100 *Division Engineer Combat Operations*, chapter 4; FM 71-3 *Armored and Mechanized Infantry Brigade*, chapters 4, and 6; FM 71-123 *Tactics and Techniques for Combined Arms Heavy*

Forces: Armored Brigade, Battalion Task Force, and Company Team, chapter 4; and *TRADOC Pamphlet 350-16, Heavy Opposing Forces (OPFOR) Tactical Handbook*, chapter 12.

STANDARDS: Identification of survivability and countermobility requirements to support brigade defensive operations will be in accordance with FM 5-100, FM 5-71-100, FM 71-3, FM 71-123, TRADOC Pamphlet 350-16 and include the following:

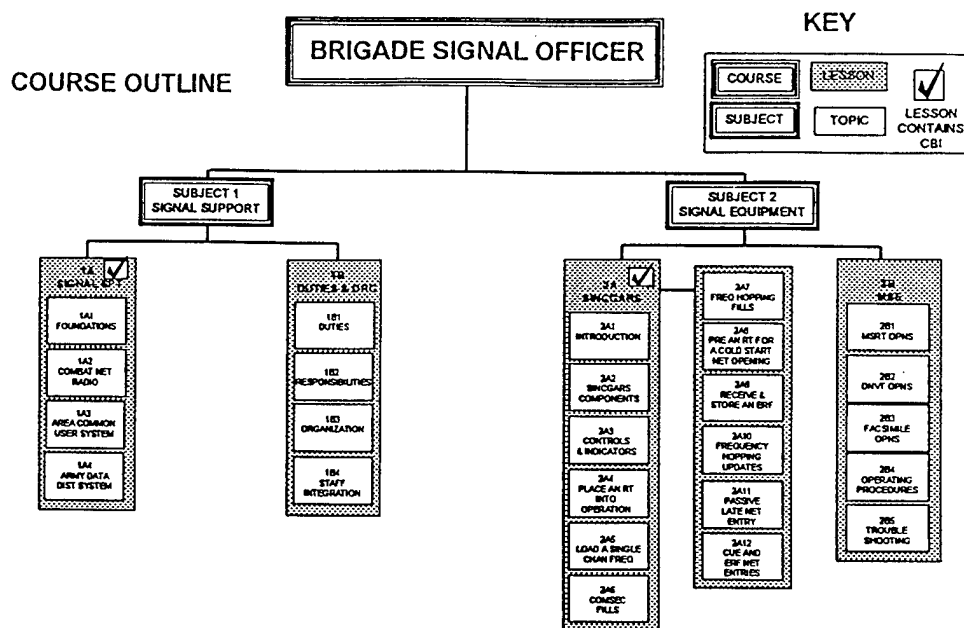
- a. Identify Threat engineer organization and breaching capability.
- b. Identify countermobility, survivability, and mobility tasks for defensive operations.
- c. Identify employment principles for countermobility (obstacle) tasks.
- d. Identify the four effects of tactical obstacles.
- e. Determine survivability requirements to support a defensive operation.

Brigade Engineer Course References

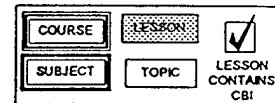
FM 5-7-30 *Brigade Engineer and Engineer Company Combat Operations
(Airborne, Air Assault, Light)*
FM 5-33 *Terrain Analysis*
FM 5-71-100 *Division Engineer Combat Operations*
FM 5-100 *Engineer Combat Operations*
FM 5-100-15 *Corps Engineer Operations*
FM 5-101 *Mobility*
FM 34-130 *Intelligence Preparation of the Battlefield*
FM 71-2 *The Tank and Mechanized Infantry Battalion Task Force*
FM 71-3 *Armored and Mechanized Infantry Brigade*
FM 71-100 *Division Operations*
FM 71-123 *Tactics, Techniques, and Procedures for Combined Arms Heavy Force
and Armor Brigade, Battalion/Task Force and Company*
FM 101-5 *Staff Organization and Operations*
FM 101-5-1 *Operational Terms and Symbols*

TRADOC Pamphlet 350-16 *Heavy Opposing Forces (OPFOR) Tactical Handbook*

U.S. Army Combined Arms Command and Fort Leavenworth *Heavy Opposing
Forces (OPFOR) Organization Guide*



KEY



BRIGADE SIGNAL OFFICER COURSE

TERMINAL LEARNING OBJECTIVE (TLO): The Brigade Signal Officer is the commander's principal staff officer for signal support. The signal officer will provide direction to the personnel assigned to him and is responsible for assisting the commander and staff in the tactical decision making process, and in staff planning in support of operations. The signal officer must provide staff supervision to brigade units in the areas of communications planning and installation, operation, and maintenance of all communications equipment organic to the brigade. He provides advice to the brigade commander and the task force commanders on the selection of retransmission sites and the operation of the Mobile Subscriber Equipment (MSE) in support of tactical operations.

TASK 1: ORGANIZATION AND FUNCTION

TASK1A: Identify the foundations of signal support.

CONDITIONS: Given a course of instruction and access to FM 11-32 *Combat Net Radio Operations*, chapters 1, 3, 4, 5, 6, 7, and 10; FM 11-43 *The Signal Leader's Guide*, chapters 1, 2, 3, 4, and appendix A; FM 24-1 *Signal Support in the Airland Battle*, chapter 3; and U.S. Army Research Institute Fort Benning Field Unit Research Product *Brigade Commander's Battle Staff Handbook*, November 1994.

STANDARDS: Identification must be in accordance with FM11-32, FM 11-43, and FM 24-1 and include the following:

- a. Explain the Battlefield Tactical Command and Control System.
- b. Identify the Battlefield functional areas.
- c. Describe the capabilities and employment of the radio systems that make up the Combat Net Radio.

- d. Identify the relationship between Battlefield Functional Areas (BFAs), Combat Net Radio (CNR), Army Data Distribution System (ADDS), and the Area Common User System (ACUS).
- e. Identify the primary role of the CNR networks.
- f. Identify Single-Channel Ground and Airborne Radio System (SINCGARS) planning requirements.
- g. Describe the capabilities and employment of the Army Data Distribution System (ADDS).

TASK1B: Identify the duties and responsibilities of the Brigade Signal Officer.

CONDITIONS: Given a course of instruction and access to FM 11-43 *The Signal Leaders Guide*, chapter 2, and appendix A; FM 11-50 *Combat Communications within the Division (Heavy and Light)*, chapters 2, 3, and appendix A; FM 101-5 *Staff Organizations and Operations*, chapter 3; and FM 71-3 *Armored and Mechanized Infantry Brigade*, chapter 6 and *U.S. Army Research Institute Fort Benning Field Unit Research Product Brigade Commander's Battle Staff Handbook*, November 1994.

STANDARDS: Identification must be in accordance with FM 11-43, FM 11-50, FM 71-3, FM 101-5, *Brigade Commander's Battle Staff Handbook* and include the following:

- a. List the duties of the Brigade Signal Officer.
- b. Identify the signal organizations of the corps, division, and heavy brigade.
- c. Identify the coordination between the Brigade Signal Officer and the brigade battle staff.
- d. Identify methods to track brigade radio/communication and maintenance status.
- e. Select retransmission sites.
- f. Identify the coordination between the Brigade Signal officer, the Division Signal Officer, and adjacent Brigade Signal officers.

TASK 2: SIGNAL EQUIPMENT

TASK2A: Place a single channel ground and airborne radio system (SINCGARS) into operation, enter a frequency hopping net, and maintain net communications.

CONDITIONS: Given a computer simulated SINCGARS radio and access to FM 11-32 *Combat Net Radio*, chapter 3; TM 11-5280-890-10-1 *Technical Manual Operator's Guide for the RT-1523*, chapters 1 and 2.

STANDARDS: Place the SINCGARS radio into operation and maintain net communications in accordance with TM 11-5280-890-10-1 and include the following:

- a. Describe the components and capabilities of SINCGARS.
- b. Select SINCGARS controls and indicators with 100% accuracy.
- c. Prepare a SINCGARS radio for operation.
- d. Place a SINCGARS radio into single channel operation.
- e. Load a SINCGARS radio with an electronic defense fill.
- f. Prepare a SINCGARS radio for and place it into frequency hopping operation.
- g. Prepare a SINCGARS radio for and perform a cold start net opening, and receive and store an electronic remote fill (ERF).
- h. Receive and store a frequency hopping update over the air.
- i. Perform a passive late net entry.
- j. Re-establish net communications using the CUE method of net entry, and receive and store an ERF.

TASK2B: Identify MSE operations at brigade level.

CONDITIONS: Given a course of instruction and access to FM 11-37 *MSE Primer for Small-Unit Leaders*, chapters 1, 2, 3, and appendices B, F, and H; FM 11-50 *Combat Communications within the Division (Heavy and Light)*, chapter 7 and appendix A.

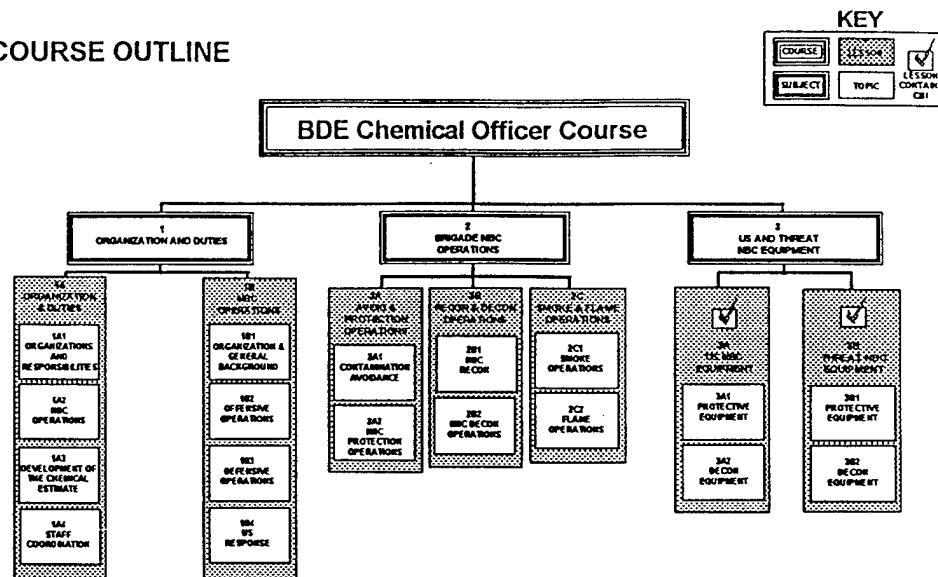
STANDARDS: Description must be in accordance with FM 11-37 and FM 11-50 and include the following:

- a. Identify division and corps planning activities, and the products that result therefrom, for which the brigade Signal Officer is responsible.
- b. Identify Mobile Subscriber Equipment (MSE) in a typical field configuration.
- c. Describe Mobile Subscriber Radiotelephone (MSRT) operating procedures.
- d. Place a Digital Nonsecure Voice Terminal (DNVT) into operation.
- e. Place a facsimile machine into operation.

Brigade Signal Officer Course References

- FM 11-32 Combat Net Radio
 - FM 11-37 *MSE Primer for Small Unit Leaders*
 - FM 11-43 The Signal Leaders Guide
 - FM 11-50 *50 Combat Communications within the Division (Heavy and Light)*
 - FM 24-1 *Signal Support in the Airland Battle*
 - FM 71-3 Armored and Mechanized Infantry Brigade
 - FM 101-5 Staff Organizations and Operations
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- ARI RP 94-02 Brigade Commander's Battle Staff Handbook, U.S. Army Research Institute Fort Benning Field Unit Research Project
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- TM 11-5280-890-10-1 *Technical Manual Operator's Guide for the RT-1523*

COURSE OUTLINE



BRIGADE CHEMICAL OFFICER COURSE

TERMINAL LEARNING OBJECTIVE (TLO): Provide the brigade chemical officer the knowledge and skills to participate in tactical decision making as a member of a brigade staff, and to plan and coordinate for the effective integration of all chemical defense support assets in accomplishing the brigade commander's intent.

TASK 1: ORGANIZATION AND DUTIES

TASK1A: Identify duties of the brigade chemical officer, and the organization of the chemical staff.

CONDITIONS: Given a course of instruction and access to FM 3-100 *NBC Defense, Chemical Warfare, Smoke, and Flame Operations*, FM 71-123 *Tactics and Techniques for Combined Arms Heavy Brigades: Armored Brigade, Battalion/Task Force, and Company/Team*, FM 71-3 *Armored and Mechanized Infantry Brigade*, FM 101-5 *Staff Organization and Operations*, and *US Army Research Institute Fort Benning Field Unit Research Project Commander's Battle Staff Handbook*, March 1995.

STANDARDS: Identification of nuclear, chemical, and biological warfare requirements to support and protect the brigade in accordance with FM 3-100 and include the following:

- a. Identify the duties of the division chemical officer.
- b. Identify the duties of the brigade chemical officer.
- c. Identify the duties of the task force chemical officer or NCO.
- d. Identify the organization of the brigade chemical section.
- e. Identify the organization of the task force chemical section.
- f. Identify critical planning and employment considerations in an NBC environment.

- g. Identify requirements for the development of the chemical estimate.
- h. Identify the requirements for staff coordination by the chemical staff officer for a brigade.

TASK 1B: Identify Soviet NBC doctrine and Third World NBC capabilities, how it applies to the modern integrated battlefield, and US NBC response.

CONDITIONS: Given a course of instruction and access to FM 3-100 *NBC Defense, Chemical Warfare, Smoke, and Flame Operations*, chapter 1; FM 100-2-1, *The Soviet Army, Operations and Tactics*, Chapter 16; and FM 100-2-3, *The Soviet Army Troops, Organization, and Equipment*, chapters 4 and 5.

STANDARDS: Identification of nuclear, chemical, and biological warfare doctrine of the former Soviet Army and Third World nations will be in accordance with FM 3-100, FM 100-2-1, and FM 100-2-3 and include the following:

- a. Identify Soviet doctrine concerning the use of tactical nuclear weapons.
- b. Identify Soviet doctrine concerning the use of chemical and biological weapons.
- c. Identify Soviet delivery means for NBC fires.
- d. Identify the most likely Third World NBC weapon that can be used based on economic factors.
- e. Identify Soviet chemical protection units at regimental to army level.
- f. Identify Soviet use of NBC to doctrinally support an offensive operation in an integrated environment.
- g. Identify Soviet use of NBC to doctrinally support a defensive operation in an integrated environment.
- h. Identify US NBC response actions.

TASK 2: NBC OPERATIONS

TASK 2A: Identify methods to avoid nuclear, chemical, and biological contamination, and methods to protect the brigade from debilitating contamination.

CONDITIONS: Given a course of instruction and access to FM 3-3 *Chemical and Biological Contamination Avoidance*, Chapter 1; FM 3-3-1 *Nuclear Contamination Avoidance*, Chapter 1; and FM 3-100 *NBC Defense, Chemical Warfare, Smoke, and Flame Operations*, chapter 4.

STANDARDS: Identification of nuclear, chemical, and biological contamination avoidance will be in accordance with FM 3-3, and FM 3-3-1 and include the following:

- a. Identify passive and active means to avoid nuclear, chemical, and biological contamination.
- b. Identify the six NBC reports and their purposes.
- c. Identify means by which a unit may limit its exposure to NBC contamination.
- d. Identify the levels of mission-oriented protective posture (MOPP).
- e. Identify the methods for performing MOPP analysis.
- f. Identify the methods for protection against nuclear blast and contamination.

TASK 2B: Identify how NBC reconnaissance is performed at the brigade level. Identify the considerations that must be made when performing unit decontamination.

CONDITIONS: Given a course of instruction and access to FM 3-5 *NBC Decontamination*, chapters 1 and 2, and FM 3-19 *NBC Reconnaissance*, chapters 1-3, 7 and 8.

STANDARDS: Identification of reconnaissance and decontamination principles and procedures will be in accordance with FM 3-5 and FM 3-19 and include the following:

- a. Identify the effects that the environment has on the persistency of chemical agents.
- b. Identify the organizations for NBC reconnaissance within a division.
- c. Identify the best unit within a brigade to perform NBC reconnaissance.
- d. Identify the fundamentals of NBC reconnaissance.
- e. Identify the three reconnaissance techniques used by a NBC recon team.
- f. Identify the three search techniques used in NBC reconnaissance.
- g. Identify the three survey techniques used in NBC reconnaissance.
- h. Identify the five types of contamination hazards.
- i. Identify the critical components of what constitutes a negligible risk.
- j. Identify the four principles of decontamination.
- k. Identify the three levels of decontamination.

TASK 2C: Identify smoke and flame operational requirements to support the brigade.

CONDITIONS: Given a course of instruction and access to FM 3-11 *Flame Field Expedients*, Chapters 1-3; FM 3-100 *NBC Operations*, Chapter 6; and FM 71-123 *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion Task Force, and Company Team*, chapters 3, 4, 7, and appendix G.

STANDARDS Identification of smoke and flame requirements to support the brigade will be in accordance with FM 3-11, FM 3-100, and FM 71-123 and include the following:

- a. Identify key personnel involved in smoke operations planning.
- b. Identify the four applications of smoke
- c. Identify the three types of screening smoke.
- d. Identify the seven means that can provide smoke for tactical situations.
- e. Identify critical planning and employment considerations for the use of smoke.
- f. Identify the uses for flame weapons in offensive operations.
- g. Identify the uses for flame weapons in defensive operations.
- h. Identify methods to develop flame field expedient devices (FFE).

TASK 3: US AND THREAT NBC EQUIPMENT

TASK 3A: Identify Brigade organization and expendable nuclear, chemical, and biological equipment, and the capabilities of that equipment.

CONDITIONS: Given a course of instruction and access to FM 3-4 *NBC Protection*, chapters 1 and 6, FM 3-5 *NBC Decontamination*, chapters 1 and 2.

STANDARDS: Identification of nuclear, chemical, and biological equipment available to a brigade will be in accordance with FM 3-4, and FM 3-5 and include the following:

- a. Identify brigade individual protective equipment and capabilities.
- b. Identify brigade individual decontamination kits and sets, and chemical agent detection capabilities.
- c. Identify collective protection equipment within the brigade and the capabilities of each.
- d. Identify collective decontamination equipment available within the brigade, basis of issue, and capabilities.

TASK 3B: Identify Threat chemical organization, and nuclear, chemical, and biological detection and protection equipment, and the capabilities of that equipment.

CONDITIONS: Given a course of instruction and access to FM 100-2-1 *The Soviet Army Operations and Tactics*, chapter 16; FM 100-2-3 *The Soviet Army Troops, Organization, and Equipment*, chapters 4 and 5.

STANDARDS: Identification of Threat chemical organization and nuclear, chemical, and biological equipment available will be in accordance with FM 100-2-1, and FM 100-2-3 and include the following:

- a. Identify threat chemical organizational structure.
- b. Identify threat individual protective equipment and capabilities.
- c. Identify threat individual decontamination kits and sets, and chemical agent detection capabilities.
- d. Identify collective protection equipment available to threat forces and the capabilities of each.
- e. Identify collective decontamination equipment available to threat forces, basis of issue, and capabilities.

Brigade Chemical Officer Course References

FM 3-3	Chemical and Biological Contamination Avoidance 16 November 1992
FM 3-4	NBC Protection 21 October 1985
FM 3-5	NBC Decontamination 24 June 1985
FM 3-7	NBC Handbook 7 June 1990
FM 3-50	Smoke Operations 4 December 1990
FM 3-100	NBC Defense, Chemical Warfare, Smoke, and Flame Operations 23 May 1991
FM 71-3	Armored and Mechanized Infantry Brigade 11 May 1988
FM 71-123	Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company Teams 30 September 1992
FM 100-5	Operations 14 June 1993
FM 101-5	Staff Organization and Operations 25 May 1984
FM 101-5-1	Operational Terms and Symbols 21 October 1985
ARI RP 94-02	Brigade Commander's Battle Staff Handbook, Army Research Institute Fort Benning Field Unit